EXPLORING THE ISSUES IN AUTISM TRAINING FOR PAEDIATRICIANS, MAINSTREAM SECONDARY SCHOOL TEACHERS AND POLICE OFFICERS IN MALTA

by

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A thesis submitted to the University of Birmingham for the degree of

DOCTOR OF PHILOSOPHY

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January 2022

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ABSTRACT

This study was conducted in Malta and explored the views on autism training of three different groups of professionals - the police, teachers in mainstream secondary schools, and paediatricians. A review of previous studies in this field revealed that these professionals often lacked sufficient knowledge on autism and needed training. A lack of knowledge often leads to misunderstandings and negative experiences for autistic people and their families alike. There was also a dearth of research on what their views on autism training were and what their preferred delivery method might be. This study focused on how knowledgeable the police, paediatricians and mainstream teachers were about autism in Malta, and whether they had received any autism training. It explored what might motivate these groups to engage in autism training, what training methods they found the most effective and enjoyed, and what might hinder their participation.

An online survey was developed and used to obtain a snapshot of their views on autism training. Of the 162 respondents, the majority had not received any training on autism and said they would be prepared to commit time to autism training in the future. Following the survey, 10 participants from each profession were interviewed. These showed that participants were more motivated to participate in training when it contained a practical element, rather than being purely theoretical, when training was tailored to their specific roles, and when it was short and focused. They preferred training to be held during working hours and felt incentives were needed. Their key motivation was a desire to do a better job. The key barriers were that other training often took precedence; there was a lack of available training in Malta and they were

able to consult with more knowledgeable professionals, if needed. Autism was not viewed as an area that required immediate action.

The findings raised important issues for training providers such as, creating training that is presented in a way that boosts self-confidence to counteract their feelings of helplessness when dealing with autistic people. Training should be relevant to their practice and consider incentives for attendance. Training should also consider the use of effective methods that participants identified as motivators such as, simulation-based learning, which allows for more participation as opposed to a traditional lecture type, and input from autistic people and their families which was considered an effective motivator. Recommendations for future research include exploring how autistic people can be involved in the presentation as well as in the design of the training. This could start by gathering the views of autistic professionals themselves. There is also a need to explore how to make better use of digital and online learning for training, given that most of the paediatricians and teachers were keen to access this. Following these findings, a national task force should be considered to explore the inclusion of autism training in the initial training of these professionals, and to establish standardised training in autism for professionals, to generate a more positive training culture.

For my beloved, caring and supportive wife, Yanika and

my lovely daughter, Sophie Ella

Your unconditional love, understanding and encouragement are my pillars.

ACKNOWLEDGEMENTS

This PhD study would not have been possible without the support, help and encouragement of many important people.

First and foremost, I would like to thank the Maltese Government for the scholarship which enabled me to further my studies. My sincere gratitude goes to all the Team at the Malta Government Scholarship Scheme, who were very helpful throughout the past years.

In particular, I am especially grateful to my supervisors Dr Despina Papoudi, Dr Glenys Jones, Dr Prithvi Perepa and Dr Lila Kossyvaki for their useful guidance and feedback throughout the past years. Their input was not only significant to help me complete this project successfully, but also to become a skilled researcher, which will definitely be beneficial in my future work. Special thanks go to Dr Glenys Jones for being extremely supportive from the very beginning of this project till the very end. I am deeply grateful for her detailed feedback on the multiple versions of my work. I will definitely treasure all her valuable advice throughout my career. Above all, she taught me a great deal about genuine commitment to research as a practical tool to help others.

I am especially grateful to the contribution of all the participants in this study. My heartfelt thanks go to all the key contact people who were instrumental to recruit the participants. They were very supportive throughout the whole process. I would like to thank all those who responded to the questionnaire, and the 30 participants who accepted to be interviewed and dedicated their personal time to talk at length with me.

Thanks are also due to the students and my colleagues at The Malta Autism Centre who were all very understanding. In particular, I would like to thank Mr Jean Pierre Spiteri, who assumed some of my responsibilities during my studies, so that I could focus more on my PhD work.

I would also like to acknowledge here my gratitude for the meticulous work that was carried out by the transcriber Ms Marlene Bianco. She was very understanding and worked very hard to keep up with my work timeframes.

Thanks are also due to my wife's brother-in-law Glenn Micallef for his prompt help whenever I faced technical challenges, and to check the final layout of the thesis. I also wish to thank my sister-in-law Lee Ann for meanwhile keeping my daughter happily occupied in play.

I also wish to thank my colleague and friend Dr David Cassar for his unwavering support during this project, especially during the most challenging times.

I would also like to thank my parents, Therese and Emmanuel for their continuous support and encouragement to complete this project. My thanks also go out to the support I received from my mother and father-in-law Josephine and Joseph, particularly, for always adjusting their personal plans to accommodate to my studies, and to take care of our daughter.

Finally, I would like to add personal thanks to my wife Yanika, who was extremely supportive during my PhD journey. Being a PhD student herself, was not an easy task to find that extra energy, but Yanika was always there in every little step of the way. Whenever, I faced a challenge, she was capable of putting her work aside to help me overcome mine. I also want to thank my 'PhD baby' Sophie Ella who knows both her parents always studying. I thank her for all the sacrifices that she made, despite her very young age. I promise her that although she has always been the focus of my life even when I was very busy, I will make sure to make up for any missed quality time.

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GLOSSARY OF TERMS

ADHD	Attention Deficit and Hyperactivity Disorder
ASD	Autism Spectrum Disorder
APPGA	All Party Parliamentary Group on Autism
CDAU	Child Development and Assessment Unit
CME	Continuous Medical Education
CPD	Continuing Professional Development
DSM-5-TR	Diagnostic and Statistical Manual of Mental Disorders
EU	European Union
ID	Intellectual Disability
IfE	Institute for Education
INSET	In-Service Education and Training
GDPR	General Data Protection Regulation
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer and questioning
LEO	Law Enforcement Officer
LSE	Learning Support Educator
MAC	Malta Autism Centre
MGRM	Malta Gay Rights Movement
NAS	National Autistic Society
NASUWT	National Association of Schoolmasters Union of Women Teachers
NGOs	Non-Governmental Organisations
NHS	National Health Service
NSO	National Statistics Office
NTs	Neurotypicals
OECD	Organisation for Economic Co-operation and Development
OFSTED	Office for Standards in Education
PGCE	Post-Graduate Certificate of Education
RCPCH	Royal College of Paediatrics and Child Health
RIU	Rapid Intervention Unit
RRBs	Restrictive and Repetitive Behaviours
SEN	Special Educational Needs
SPSS	Statistical Package for the Social Sciences
TA	Thematic Analysis
TAs	Teaching Assistants
UK	United Kingdom
USA	United States of America

CHAPTER 1
INTRODUCTION

This Chapter introduces the topic of the thesis and gives an overview of my interest in the topic and a brief description of what autism is. It explains the aims of this study and its significance, particularly in the Maltese context and in light of my profession. It also refers briefly to past studies and to gaps in the literature that this study intends to address. Finally, this chapter gives a very brief overview of the research design of this study, and a short description of how this thesis will be structured.

1.1. Impetus for this study

Following a first degree in Psychology in 2002, my first job was in an autism early intervention programme for children between the ages of 3 and 6 years. Following that, I was given the responsibility to set up a programme for autistic teenagers within the same organisation. Throughout these years, I observed how autism unfolds and how the need for support changes as people go through the different stages of their lives. It was this comprehensive experience that inspired me to further my studies in autism. In 2009, I completed a Masters degree in autism at The University of Birmingham, together with my wife who also works in this field. On our return to Malta, we set up a specialist Centre for autism in 2011. The Malta Autism Centre (MAC) was the first Foundation in Malta to offer autism specific intervention. Until then, therapy for autistic people was provided by organisations for people with different special educational needs (SEN).

The MAC soon became a reference point for many families with autistic children, young people and adults. Intervention at MAC, where I am Co-Director, is offered to children from the age of two until the age of 50. All people receiving intervention have an individualised programme that addresses their needs and promotes their independence and social inclusion in the community.

Through daily discussions with autistic adults and parents of young children, I learnt that many felt that autistic people were not well understood by the very professionals they often turned to for support. Among the most mentioned were the paediatricians, who parents often blame for their child's delayed diagnosis, as they do not identify the first signs of autism. Teachers are often described as lacking knowledge about the diversity within the autism spectrum. Autistic students with average intellectual abilities are regularly misunderstood and their behaviour misinterpreted, leading to reprimands and school exclusions. Another concern expressed by autistic adults and their parents is the lack of autism awareness among the police. Misinterpretation of the adults' stereotypic behaviour often leads to negative encounters with the police and possibly unjustified arrests.

Thus, my inspiration to conduct this study came from the observation that when understanding is limited, autistic people are often judged through a neurotypical (NT) lens, leading to misinterpretation. Moreover, when professionals are not well informed about autism, autistic people and their families will suffer. This situation encouraged me to explore what could be underlying this lack of autism knowledge, and what could motivate these professionals to attend training to enhance their autism knowledge and understanding.

1.2. The autism spectrum

Autism is a lifelong neurodevelopmental condition which affects the way a person perceives and relates to the people and to the world around them (Park, Lee, Moon, *et al*., 2016). Autism manifests itself differently in different individuals and may be accompanied by learning difficulties and cognitive delays. Although the prevalence figures for autism vary, the majority of research studies in the United Kingdom (UK) show that it is estimated that 1 per cent of the population are on the autism spectrum, and this remains similar across the lifespan (Baron-Cohen *et al*., 2009; Brugha *et al*., 2011; Hickey *et al*., 2018; Office for National Statistics, 2011). Along the years, the rate of autism has risen exponentially. Indeed, in the recent decades, autism is no longer regarded as an extremely rare condition (Russell *et al*., 2021).

The majority of studies show that male-to-female ratio is 3:1 (Loomes *et al*., 2017; Taylor, Jick and MacLaughlin, 2013). However, nowadays, there is more awareness about autistic females who may be under-identified, in both research and clinical contexts (Gould, 2017; Kreiser and White, 2014; Rivet and Matson, 2011; Watkins *et al*., 2014). For females, recent research portrays some different challenges than in males, especially in childhood and adolescence. For instance, females experience more lifetime sensory symptoms and fewer socio-communication difficulties than males (Cridland *et al*., 2014; Lai *et al*., 2011; Milner *et al*., 2019; Navot *et al*.,2017). Moreover, studies have shown that the use of camouflaging behaviours, which is very common in autistic females, has been associated with more self-reported stress and anxiety (Cage and Troxell-Whitman, 2019; Hull *et al*., 2017).

1.2.1. Social, communication and interaction differences

One of the main differences in autism is in the communication and social interaction domains. Indeed, the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) puts emphasis on the social and interactive nature of communication (American Psychiatric Association (APA), 2013). The latter area includes a number of different skills such as social engagement, initiating, and maintaining relationships (Vicker, 2009). One of the main challenges for autistic people is to interpret social cues (Meyer *et al*., 2006) or maintain conversations (Volden, 2004). Very often, such differences in social understanding result in a lower quality of social relationships (Baron-Cohen and Wheelwright, 2003) and make them more susceptible to harassment and social exclusion (Treweek *et al*., 2019).

Jordan (2019 p. 18) remarked that 'only in autism can speech develop without communicative ability'. Jordan explains that this is something which is unique to autism. She recognises that some autistic individuals do experience problems to develop language but this lack of development is not coming from autism itself. Jordan (2019) emphasised that:

> Autism affects communication and, since communication is usually the key that helps the child understand and develop language, that will make it harder for language to develop if there are any other reasons for difficulties in that development (Jordan, 2019, p. 18).

Differences in social understanding may be observed as reduced sharing of interest with others, a difficulty to understand others' emotions and empathise with them, as well as finding it hard to make and maintain quality friendships and relationships.

Studies have found that due to these differences in the social and communication areas, accompanied by the lack of any physical characteristics that provide others with an explanation for such varied behaviour, often result in poor first impressions and a reduced interest on the part of neurotypicals (NTs – those without autism) to interact with autistic people (Sasson, Faso, Nugent *et al*., 2017; Sasson and Morrison, 2019). Other studies have also found that stigma could also be prompted by the diagnostic label of autism (Dickter and Burk, 2021; Russell and Norwich, 2012).

1.2.2. Restrictive and repetitive behaviour

The second core area of difficulty for autistic people is the restricted and repetitive behaviours (RRBs) (APA, 2013). In literature, the latter are usually subdivided into two categories: (i) insistence on sameness and (ii) repetitive sensory motor behaviours (Bishop *et al*., 2013; Georgiades *et al*., 2010; Honey *et al*., 2012; Turner, 1999). Such behaviours may include preoccupations/circumscribed interests, habitual routines, and repetitive sensorimotor behaviour, including stereotyped movements and sensory preoccupations, such as hand-flapping and rocking (Mosconi *et al*., 2009). Theoretically, the symptoms underpinning RRBs are linked to the executive functioning (EF), which includes problem-solving abilities, controlling one's inhibitions and cognitive flexibility (Rosenthal, Wallace, Lawson, *et al*., 2013) . According to Griffin, Hume and Sam (2019) RRBs often hinder autistic individuals' educational development. They argue that these barriers could be:

> …created by the internal or external distractions these students are experiencing, to resulting behaviour problems such as meltdowns or acting out behaviours that prevent students from being able to effectively participate in their instructional programme (Griffin, Hume and Sam, 2019, p. 230).

1.2.2.1. Sensory processing issues

Over the last decade, there has been a growing recognition of the importance of sensory issues in the lives of autistic people. The latter frequently report that they process sensory information differently from others and they consider this problem as central to their condition (Chamak *et al*., 2008). Thus, understanding the cause of sensory processing alterations is necessary to make sense of autism and the challenges that it may bring with it.

Sensory differences were included in the DSM-5-TR for the first time as part of the diagnostic criteria for autism. Autistic people can be highly sensitive (hyper-sensitive) or under-sensitive (hypo-sensitive). The same person can be hyper- and hypo-sensitive. Studies have shown that 69% to 95% of autistic people experience some degree of atypical sensory processing (Hazen *et al*., 2014; Posar and Visconti, 2018; Roberstson and Baron-Cohen, 2017). For example, Bastow (2021, p. 51) described his sensory-seeking behaviours as an:

> …unusual curiosity about or desire to engage with certain sensory information; repeatedly touching something of a particular texture, staring at certain moving objects, or listening to loud sounds (Bastow, 2021, p. 51).

It has been reported (Dellapiazza, 2018; Robertsons and Baron-Cohen, 2017) that many autistic people describe these atypical sensory processing as highly problematic (since these often cause distractions and discomfort). It usually presents them with a big challenge to participate in social settings and can interfere with daily living requirements. Sensory hyper/hypo-sensitivity is currently categorised under the area of restricted interests and repetitive behaviours in the diagnostic criteria. However, a

developing body of research is suggesting that sensory hypersensitivity may in fact contribute to RRBs in a causal manner (Black *et al*., 2017; Boyd *et al*., 2010; Boyd, McBee, Holtzclaw, *et al*., 2009). These findings offer an explanation through the overarousal hypothesis, which postulates that RRBs may be a means through which autistic individuals cope with overwhelming sensory inputs (Hutt *et al*., 1964).

Indeed, over the years autistic people have claimed that such RRBs can also serve a positive function in their lives. Such ways include helping them to calm down and lower their anxiety, deal with overwhelming emotions and communicate them to others, and as a way to acquire body awareness (Deweerdt, 2020).

1.2.3. Factors that cause a great deal of anxiety in autistic people

Very often, the above differences are generally the cause of a great deal of anxiety in autistic people. Indeed, anxiety is one of the most common co-occurrences in autism. It is estimated that 30 per cent of autistic adults meet a diagnosis for an anxiety disorder (Hollocks *et al*., 2019). For example, social communication difficulties may provoke anxiety and as a result lead to further social withdrawal. Consistently, studies have revealed a meaningful association between difficulties in the social communicative area and anxiety levels, in autistic children (Chang *et al*., 2012; Eussen *et al*., 2013).

Sensory sensitivities, both hyper- and hypo-sensitivity, have mainly been conceptualised as another causal factor to anxiety. Accordingly, a qualitative study found that young autistic adults reported that ‘sound and light sensitivities’ were main contributors to their anxiety (Trembath *et al*., 2012, p. 217). Moreover, quantitative

studies found that participants with high anxiety levels experienced more severe sensory sensitivities (Gillott and Standen, 2007; Uljarević *et al*., 2016).

A significant positive association between repetitive behaviours and anxiety in autistic individuals has also been reported in a number of studies. (Joyce *et al*., 2017; Lidstone *et al*., 2014; Wigham *et al*., 2015). Through qualitative research, it has interestingly been suggested that the repetitive behaviours may indeed be a coping strategy for autistic people with high anxiety levels, but which may in turn exacerbate anxiety (Joyce *et al*., 2017).

1.3. Aims of this study

The main aim of this study is to listen to the voices of the professionals themselves to gain a clearer understanding of their daily experiences with autistic people, and explore possible ways how these professions can be more informed on autism. A key aim of the study was to understand what type of autism training the three professional groups would be attracted to attend, and the form of delivery. This would include the identification of promoters and barriers to engaging in autism training. Autism training is often offered to those professionals who work directly with autistic people, such as, learning support educators (LSE), carers, intervention therapists and speech therapists. However, less importance is given to autism training for professionals whose work is not directly linked to autistic people. Literature shows that professionals in this category are not well-informed on autism (e.g. Imran *et al*., 2011; Kharti, Onta, and Choulagai, 2011; Rakap *et al*.,2016). However, there are no studies which explore the views of these professionals about autism; whether they are keen to learn more on

autism, and what elements in training could motivate them to undertake autism training.

Hence, this study aims to address this gap by gathering the views of three different groups of professionals who fall in this category namely, paediatricians, mainstream secondary school teachers and police officers. Being the first Maltese study on this topic, I considered the selected professions a priority. This is because they are the most mentioned by the people attending the MAC. Moreover, the selected professions represent three important stages in the life of autistic people. Paediatricians are usually among the first professionals who see autistic children when parents express their first concern. Thus, their knowledge is key to identify the early signs of autism and guide parents to the right sources of early intervention.

Since the majority of autistic students with average intellectual ability attend mainstream schools, awareness and understanding of the diversity of autistic students among secondary school teachers is considered essential to guide teachers' attitude and responses to their students' distinctive behaviours. The focus was on secondary school teachers only since the majority of studies to date included primary school teachers. Thus, the views of secondary school teachers are underexplored. Finally, police officers, working at the police stations around Malta were considered an important profession, particularly for the benefit of those young people and adults with verbal and intellectually abilities who often attempt to fit in the social community. Since autism is an invisible condition, similar to the experiences of adults attending the MAC, a number of research studies (e.g. Archer and Hurley, 2013; Railey *et al*., 2020) have

shown that very often the behaviour of autistic individuals tends to be easily misinterpreted.

Thus, this study aims to explore how these professionals can acquire more autism knowledge, by identifying potential barriers and uncovering possible routes through which information on autism can reach them effectively. This research problem as Booth, Colomb and Williams (2003, p. 228) argue has ‘some condition of incomplete knowledge or understanding’. Although research shows that these professionals are not knowledgeable enough on autism, it is not known yet what can motivate them to learn and understand autism, and which medium is possibly most effective to provide them with relevant information. Hence, as a response to this existent vacuum, this study attempts to understand better what these professionals think about training in general. Moreover, what kind of information they think they need about autism, what motivates or deters them to attend training on autism, and the format they think is most attractive and effective.

1.4. Significance of this study

The rising prevalence rate of autism (Russell *et al*., 2021) is increasing the possibility of professionals to encounter autistic people in their working lives. It is understood that as much as autistic people find it difficult to understand NTs, the latter do not possess a natural ability to understand autistic people (Jordan, 2008). Therefore, the cognitive ability to understand how autistic people experience the world must be acquired by NTs through learning. Thus, this study intends to explore how these professionals can be enabled to acquire such knowledge.

The topic of autism training is often studied through the eyes of professionals already working in the autism field, parents of autistic children or autistic adults (e.g. Dillenburger *et al*., 2016). This study gives a voice to those professionals, who despite not specialising in autism, still encounter and offer their professional services to them. It is expected that the interests and needs of these professionals are different to those of autism professionals or autistic people. Therefore, training suitable for the latter groups could be ineffective and not as relevant to non-specialist professionals, such as the police, mainstream teachers and paediatricians. The majority of the studies which focus on professionals in this category show that they are not well-informed on autism (e.g. Imran, *et al*., 2011; Kharti, Onta, and Choulagai, 2011; Rakap, *et al*., 2016). There are few studies which explore how knowledge on autism might be delivered to these professionals in an effective manner. So, this study aims to understand the context of their work and the main challenges they face when supporting autistic people in their daily profession. It also aims to explore their willingness or lack of it to learn about autism, and to identify important factors in developing autism training for these professional groups.

These findings are also significant for the MAC where I work. As a Centre which specialises in autism, it plans to develop an autism training unit. This study could lead the way for designing autism training for professionals in these three groups.

1.4.1. Main aims of autism training

A training culture post qualification in Malta is not yet very well established. Many professionals do not appear to value this at present. As a result, there were no published studies on autism training in Malta, that focus on the promoters and barriers

to such training. Keeping in mind the above differences in autism, the role of the training would be to give non-autistic people autism understanding. Jordan (2019) argues that:

> Human beings are born with very underdeveloped brains so that the way the brain develops depends on environmental as well as genetic influences...Unless we have autism, we have instinctive processes that create a 'social brain' that appears dedicated to processing social information (Jordan, 2019, p. 12).

This explains the lack of natural ability in neurotypical people to understand the different ways that autistic people experience the social world and perceive and understand the world around them. NT people process social cues and experiences naturally, unlike autistic people who need to learn these cognitively. This automatically calls for education and training that equips NT people with knowledge and understanding of the autism condition, which could ultimately lead to more positive everyday experiences for autistic people.

Milton (2019) goes on to argue that how people perceive autism will greatly impact the language one uses in terms of autism and thus, the extent to which the educational and everyday needs of autistic people are met. Training would equip NT people with the ability to see beyond the person's diagnosis and understand and respect the fact that underlying standardised test results and thick files with descriptions of an autistic child, is a person with capabilities (Bennie, 2019). Furthermore, taking a parent's perspective, Bennie (2019) remarked:

> Anxiety is often the root cause for behaviour, so professionals have to know how to alleviate anxiety as best they can (Bennie, 2019, p. 95).

1.5. The Maltese context

Malta, where this study takes place is a small island in the middle of the Mediterranean Sea, with a population of 516,100 (NSO, 2021). Research on autism in Malta is generally scarce. In the past few years, autism has been put on the national agenda in Malta. In 2015 an Autism Bill (Persons within the autism spectrum [Empowerment] Bill) was proposed and discussed in Parliament and approved in 2016 (Laws of Malta, Chapter 557, 2016). In this Bill, reference is made to the importance of providing training to professionals 'on the needs and rights of persons within the autism spectrum' (Laws of Malta, Chapter 557, 2016, p. 4). Speaking about this matter the former Parliamentary Secretary for People with a Disability, the Hon. Justyne Caruana, said that autistic children and adults are facing difficulties and barriers that are affecting their quality of life due to a lack of awareness that exists about their condition (TVM, 2016). The implementation of this Bill is still considered at its very initial stages and no action has been taken yet on autism training.

1.6. Research methodology

This study adopts a social constructivist approach and collects subjective accounts and perspectives of a random sample of professionals from three disciplines: paediatricians, mainstream secondary school teachers and the police. It explores their views on how autism is experienced in their daily practice, and what motivates or hinders them from attending training. The main purpose of this research is to gain understanding into which factors are important to consider when setting up an autism training programme that can facilitate autism knowledge and understanding among these professionals.

1.7. Use of terminology

Studies on the terminology used to describe autism indicate that there is a lack of agreement on the preferred terminology among different stakeholders in the field (Kenny *et al*., 2016).

The term 'autistic' is preferred by many autistic people and their families who avoid the person first phrasing as they consider autism to be part of their identity (Bastow, 2021; Sainsbury, 2000; Sinclair, 1993). Autistic people in the Kenny et al. (2016, p. 16) survey emphasised that separating autism from their identity would promote 'the notion that autism is inherently a 'wrong' way of being'. Sinclair (1993, p. 1) described autism as an essential characteristic of the individual: 'Autism is a way of being…It is not possible to separate the person from the autism…'.

On the other hand, professionals put more focus on the person and show preference for the term '*person with autism'* (Kenny *et al*., 2016). In line with the ideology of many autistic people and their families, this thesis will use the term *'autistic people'*. Moreover, the terms *disability* and *disorder* will be avoided unless quoting the works of other researchers.

1.8. Thesis structure

This thesis consists of seven chapters. Chapter Two presents a review of the literature and past studies on autism training and related topics. The samples and methods used in past studies are discussed to provide a context for the design and methods used in this study. Chapter Three gives an overview of the different methods considered for

this study. It focuses on the two selected methods (i.e. the online questionnaire and the in-depth interviews), and provides the rationale behind this choice. The Methodology chapter gives a detailed account of what I did to gather and analyse the obtained data. The ethical issues arising from this study and the positionality of the researcher are also discussed.

Chapters Four and Five comprise the findings and results obtained from this research and the analyses of the gathered data. Chapter Four includes quantitative data gathered through the online questionnaire using Qualtrics, while Chapter Five presents the themes that emerged from the in-depth interviews.

Chapter Six presents a discussion of the research findings and their interpretation in relation to the research questions and the existing literature. This chapter highlights findings that have reinforced what is already known and discusses others that contribute to the existing knowledge gap in the literature.

Chapter Seven presents the conclusions of this study, discusses the strengths and limitations of this thesis, and presents recommendations for further research and practice.

CHAPTER 2
LITERATURE REVIEW

2.1. Introduction

One of the very initial steps of this research process was to conduct a comprehensive literature review. The main aim was to gain a thorough awareness and understanding of all the existing work and perspectives on autism training for professionals. Bell (2010, p. 112) claimed that the literature review should '…give a picture of the state of knowledge and of major questions in your topic area.'

Ridley (2012, p. 1) argued that the literature review is an essential part of a study because it positions the research '…on the academic map of knowledge creation'. She continues to say that an essential aspect of academic research is that it has connections with the work of others. Familiarising with the studies that others have done helped me to home in on the studied topic. Additionally, this helped me to identify knowledge gaps in previous work and to avoid duplicating previous work.

This chapter will review the literature on autism training for professionals who do not frequently meet autistic people in their course of work. The first section will focus on the definition of awareness-raising training and its purpose. The second section will explore the need for training on autism for professionals, their response to training and their motivation to attend. The third section will focus on the professionals in this study namely, paediatricians, mainstream secondary school teachers and police, in relation to autism training. This section will look at what is currently happening elsewhere,

outside of Malta, with regards to providing autism training for these professionals, and what impact this has on their practice. This chapter will also provide information about autism and how this is recognised and addressed in Malta. It will also review the experiences of autistic people and their families in relation to receiving support from these professionals. Studies which have been done by others on autism training will be analysed and the samples and methods used discussed, to provide a context for the design and methods used in this study.

2.2. Different forms of training

Training is frequently defined as planned learning experiences which aim to give participants adequate knowledge, skills and attitudes in order to help them deal successfully with the demands that their career work puts on them (Blanchard and Thacker,1999; Rothwell and Sredl, 2000; Taylor, 2003). Stolovitch and Keeps (2011, p. 13) argued that '…the whole reason for training, instruction and education is to enable people to learn', and they defined learning as: 'change' and 'adaptation' (p. 20).

There are numerous forms of training with different objectives. This study will consider the characteristics of awareness-raising training, for paediatricians, mainstream secondary school teachers and district police, which go beyond giving information, and aim to instigate change about the way people think and act when faced with a particular situation. These will be explored in the following sections to provide an understanding of how these characteristics could be a suitable avenue to enhance the knowledge of these three groups who may only meet autistic people occasionally in the course of their work.

2.2.1. Definition of awareness-raising

Awareness-raising is an approach which provides information through a particular medium with the aim of raising awareness on a particular topic or issue. Specifically, the aim of this process is to inform and educate people, '…with the intention of influencing their attitudes, behaviours and beliefs towards the achievement of a defined purpose or goal' (Sayers, 2006, p. 11).

Awareness-raising can be used to prepare people to deal with a wide-range of situations, which in a nutshell could be described as *'out of the ordinary'* (e.g. natural tragedies; health and safety; diversity issues in relation to topics such as race, sexuality and faith). What is common in these situations is that when people are faced with these circumstances, they do not possess the knowledge to know how to act appropriately, and thus a process of intervening is necessary. For example, after the Asian tsunami in Indonesia in 2004, awareness-raising was considered essential to help those living in the area to know how to respond to the tsunami early warnings. Although such natural tragedies do not occur very often, this does not mean that preparation for the eventuality of this situation should not take place.

A study by Atkins et al. (2013) also portrays the importance of awareness-raising intervention about depression among age-care staff. In this study, awareness-raising consisted of a two-hour presentation, giving out a book on depression and a booklet outlining important information from the training session to all the staff. Results found that such intervention had increased staff confidence remarkably, in knowing how to provide assistance to the elderly suffering from depression. Another example of a study that showed the impact of stammering awareness-training on frontline staff in the

National Health Service (NHS) in the UK was conducted by Holmes and Welby (2015). The awareness-raising session that was delivered by adults who stammer and a speech and language therapist, helped participants to become more aware of how to support people who stammer. Moreover, the information gained through this session helped them to change their approach when they encountered people who stammer, such as control their inclination to finish sentences for them.

2.2.2. Purpose of awareness-raising

Sayers (2006, p. 11) maintains that the goal of awareness training '…is understood to be a constructive and potentially catalytic force that ultimately leads to a positive change in actions and behaviours'.

So, the ultimate aim of awareness-raising goes beyond providing information, but extends to instigate change about how to think and act on a particular topic. Kozlowski and Salas (1997) explain that such change occurs when what is achieved through training such as, knowledge, skills, behaviours and attitudes, is generalised to the work setting and maintained over time. Hoyle (2015) argued that,

> …the majority of the learning happened not at the end of the content delivered by multi-media modules, PowerPoint presentations or classroom simulations, but when real people did real jobs, solved real problems and dealt with real situations (Hoyle, 2015, p. 167).

In Baldwin and Ford's (1988) transfer of training model, they claim that the three main factors that lead to the transfer of learning are: trainee characteristics; training design; and the work environment. This model did not include the role of the trainer though, or

their knowledge and expertise on the topic, which also seem to be an important factor in the content and quality of the training delivered.

There are instances where the training design allows cognitive learning, that is, participants will become more informed about a particular topic, but it will not stimulate the use of this information at the workplace. For instance, autism training can give professionals salient information about communication difficulties in autism, but fails to provide them with information on how they as professionals can alter their communication style to accommodate this difficulty. Sayers (2006, p. 12) argues that, '…providing information and creating awareness about an issue does not however automatically lead to behavioural change'.

This is why this study intends to hear the voices of the professionals so that it can understand better how training can be more useful to the kind of work they do. Many studies in the field of autism aim to explore the level of knowledge and information professionals have on autism (e.g. Crane *et al.*, 2016; Suchowierska and Walczak, 2013). However, literature is scarce on those factors that possibly influence the process of delivering information that can have a positive impact on the support that these professionals provide to autistic people.

2.2.3. Forms of awareness training

Awareness-raising can take many different forms. Activities can range from short courses, leaflets, online teaching materials, websites, and self-study. Studies on awareness-raising on various topics for professionals in different fields have explored the effectiveness of different forms of awareness training. For instance, Israel et al.

(2013) used a 5-hour training course to raise awareness among police officers on lesbian, gay, bisexual, transgender, queer and questioning (LGBTQ) issues in the United States of America (USA). The training included various teaching tools such as, brief lectures and problem-solving in small groups. Moreover, the training content reflected the job duties of police officers. The findings of this study revealed that such awareness event enhanced the participants' knowledge and helped them to understand the experiences of LGBTQ communities with safety and law enforcement. This was revealed through a pre- and post-test which evaluated participants' knowledge on LGBTQ issues. Although the topic was not directly related to their job, the majority of the participants in Israel et al.'s study (2013) described the training as very relevant to their job duties.

Role-play exercises were the main tools used in another study conducted by Bailey, Barr and Bunting (2001) to raise awareness among trainee police officers on intellectual disability (ID). Participants in this study claimed that the awareness training helped them to recognise the flaws in their own attitude towards people with ID. Additionally, this awareness event was associated with an observed change in attitude towards ID. In another study (Heiden and Harpel, 2013), simulations were regarded by undergraduate students (following Family and Child studies or Merchandising and Consumer studies) as effective mediums to change their perspectives and behaviours on stereotypes, prejudice and discrimination. Moreover, students claimed that the simulations gave them understanding about the topic which could not have been so well achieved through lectures and reading. On the other hand, participants in Ravet's (2011) study expressed disappointment about the form of training they received, and some of them had expected to listen to speakers with autism or their family members.

These studies bring to light the significance of choosing the right resources and forms of awareness training to obtain maximum effectiveness in terms of knowledge, attitude change and motivation for future training participation. It also raises the question on whether delivery preferences of awareness training are related to the particular characteristics of the intended target audience. As these studies indicate, research has focused more on the effectiveness of awareness-raising, and literature confirms the importance of such training. However, research is scarce on the views of professionals about which forms of training they prefer and learn most from. More insight is needed on whether professionals in a particular area share any similar preferences perhaps due to the nature of their job, or whether preferred forms of training delivery are purely a personal matter.

2.3. The need for autism training

Although there are numerous training programmes about various topics or issues, one common theme underlying the need for awareness training seems to be diversity. Specifically, when there is something different or unfamiliar, it appears that the majority of people find it difficult to understand it. Additionally, although there is no empirical research, it is an observed tendency in human behaviour that when people are not properly informed about something which is perceived different, they tend to interpret that difference negatively.

Autism falls in this diversity group because autistic people perceive and experience the world around them differently and thus, they respond differently. Autism is a physically invisible lifelong neurodevelopmental condition, characterised by difficulties in the

social communicative domain and restricted and repetitive patterns of behaviour. It may or may not be accompanied by intellectual disability or other co-occurring conditions, and it impacts on the lives of individuals in varied ways (Jordan, 2001). Specifically, differences in the way that autistic people think and experience the world, are usually the main stumbling blocks to have an effective interaction (Grandin, 2006). Since people in the typical population are not instinctively geared to understand autistic people, there has to be an external factor to bridge this gap. This external factor could be training which provides knowledge on what underlies the differences that characterise the autism condition, to generate more autism understanding, and facilitate these encounters.

2.3.1. The case for training in autism for professionals

There is an increased prevalence of autism, the most rapidly increasing amongst all the disabilities (Boyle *et al.*, 2011; Maenner *et al.*, 2020). Although there are inconsistencies in the prevalence rates in studies conducted around the globe, the most quoted sources indicate that the rate is at least one in 100 births (Fombonne, 2003). However, a recent study by Roman-Urrestarazu and colleagues (2021) found that autism prevalence in English pupils aged 5 to 19 years was 1.76% (2.18% males and 0.65% females). Thus, there was a substantial increase compared to previously prevalence studies (e.g. Baron-Cohen *et al.*, 2009). Malta does not have any published statistics about autism and so, the prevalence rate is unknown. However, if the 1% rate is taken, then in Malta there are around 5,161 people on the autism spectrum. The nature of autism and the significant increase in the number of autistic people, demands an expansion of knowledge (Barnhill *et al.*, 2014; Dababnah *et al.*, 2011). Moreover,

this increase in the number of diagnosed people implies that people in general, are more likely to encounter autistic people. This includes the police, paediatricians and mainstream teachers.

Autistic people meet professionals just like any other person, and it is essential, that given the complex nature of autism, professionals are well-informed about this condition (Carbone *et al.*, 2010; Myers and Johnson, 2007). Gerland (2013) when talking about professionals working in the field of autism, remarked that,

> Your professionalism must always walk hand in hand with your humanity. How easy it sounds - and how hard it is, if you are not given the right tools (Gerland, 2013, p. 15).

She argued that it is very hard to be able to provide the right support to autistic people without having autism-specific knowledge. One cannot stop at providing solely good care since this could be guided by compassion and intuition. Neurotypicals are not naturally equipped to understand autistic people, and this is likely to result in their needs being misinterpreted and unmet.

Although Gerland (2013) was talking about professionals working directly with autistic people, her argument is still very relevant to this study which focuses on professionals who do not frequently meet autistic people in their work. This thought could also be extended to all professionals who do not work in the field of autism because although they may not meet autistic people frequently, it is essential that they have the right tools to respond appropriately to their needs if they meet them. When professionals think that compassion and intuition are enough, it could pose a problem, because such thinking can affect their willingness to search for specific information on autism.

The heterogeneity of autism presents a challenge to professionals since their responses must be in synch with the individual's needs, rather than applying basic knowledge about autism (Ruble and Dalrymple, 2002). Very often, professionals' responses have a direct impact on the lives of autistic people, and failing to be knowledgeable about this condition could result in very negative experiences for autistic people and their families (Chown and Beavan, 2010). Given the difficulties arising from autism, autistic people are considered a vulnerable group in society, and emerging literature incessantly portrays them as frequently misinterpreted, bullied, abused and ridiculed (Tidbury, 2014). Thus, autism understanding is a *sine qua non* to prevent such incidents.

Training on autism and learning difficulties in the UK had a twist with the unfortunate death of an autistic young man, Oliver McGowan in 2018. Following his death, his mother Paula led a campaign for mandatory training on autism and learning difficulties, for health and social care staff. In 2019, the UK Government set out a commitment for mandatory training in the consultation response in 'Right to be heard'.

2.4. Setting for the research and implications for autism training

Malta joined the European Union (EU) in 2004 and it is the smallest member state. It is characterised by close-knit social relationships and a physical layout that makes any differences in society more likely to become apparent. Unlike large countries, societal differences do not have enough 'space' to hide or to not capture the attention of others. Such social and environmental characteristics allow more opportunity for gossip to take place. In Malta, a lot of significance is given to having a good name and reputation

(O'Reilly Mizzi, 1994). These factors are likely to create more pressure to *hide* differences and to treat diversity as taboo. Also, the Catholic church used to be very influential in Malta in terms of disability. The majority (around 94%) of the Maltese people are Roman Catholic (MaltaToday, 2018). Until the 1960's, people with disability were literally hidden away from society either in the cellar of their homes or in institutions (Camilleri and Callus, 2001). Any form of difference, whether physical or intellectual was associated with disgrace and, 'The family as a unit would soon develop an overpowering sense of shame, stigma, pollution and failure' (Camilleri, 1999, p. 848). This is believed to have resulted from a literal interpretation of the scriptures, associating disability with sin. Since diversity was regarded unmentionable, including disability which was very often kept hidden away, awareness about these existent differences was negligible.

During recent years, Malta has made great advancements with regards to people's perceptions of diversity, and studies have shown that although Malta's small size might have made it more difficult to adjust to diversity, this is not proving correct. For example, in 2011, the Democracy Index of the Economist Intelligence Unit placed Malta as one of the most democratic countries in the world, and in 2016 this Unit placed Malta in a leading position in the Civil Rights. Although further research is needed to determine what caused this shift in Maltese people, these figures show that the attitude of Maltese people towards diversity has improved. During the past ten years, the Maltese Government has put autism at the very top priority of its agenda and worked very hard to enhance the quality of life of autistic people. In 2016, Malta had its first autism specific legislation 'Persons within the Autism Spectrum (Empowerment) Bill' to address the issues that lead to the betterment of the quality of life of all autistic people

in the Maltese society. Additionally, very recently Malta published its first National Autism Strategy 2021- 2030 (Ministry for Inclusion and Social Wellbeing, 2021) for public consultation, with the aim to put in practice all the adjustments that society needs to accommodate to the needs of autistic people. Nonetheless, my experience indicates that on a daily basis, autism is still perceived as taboo to a certain extent. For instance, several families who have an autistic family member still feel uncomfortable to disclose their condition (especially those on the higher end of the spectrum). Moreover, families often claim that Maltese people are not well informed about autism and as a result their family member's needs are often misinterpreted and not well-catered for.

Undoubtedly, knowledge is one of the major tools to address such a situation, but the challenge is how to make people more knowledgeable about a particular topic. For example, The Malta Gay Rights Movement (MGRM) which was founded in 2001, held various training events for the general public and there has been a shift in the Maltese mentality with regard to gay rights and issues. In 2014, Malta introduced a Civil Union Bill to allow same-sex couples to jointly adopt children. In 2015, the European region of the International Lesbian, Gay, Bisexual, Trans and Intersex Association (ILGA-Europe) placed Malta in the first position in terms of LGBT rights, out of 49 European countries (Rainbow Europe Index, 2016). This indicates that awareness-raising is likely to generate more positive experiences for diversity groups including autistic people.

2.4.1. Influence of the media on how autism is perceived

People gather knowledge from various sources such as from the books they read, their own experience of handling a particular situation, the media and so on. With regards to the latter, the participating teachers in Samsel and Perepa's study (2013) remarked

that very often the media portrays a very distorted picture of people with disabilities, which usually dramatizes the latter and perpetuates stereotypes rather than provide a realistic message. It is very evident that autism managed to capture the attention of the media, perhaps because nowadays it is much more frequently diagnosed and thus, affecting more people. On one hand, it is very positive since more people are becoming aware of autism. However, the information that is delivered is not always correct, or it often gives a very narrow view of autism (e.g. the film *Rainman* produced in 1988 may give the impression that all the autistics are savant, something which is also featured in a more recent TV series *The Good Doctor* (2017)). Recently, Garcia (2021) an autistic journalist, expressed his frustration about the media's coverage on autism and decided to start writing on autism himself in an attempt to address the misinformation that is often spread in the media.

Unfortunately, there is also the element of sensationalism in the media, which is a very strong competitor to other information-giving methods. For instance, Arif and colleagues (2013) found that 55 percent of the primary school teachers participating in their study in Pakistan knew about autism through the media. Only ten percent had formal training on autism, and 8 percent had attended a workshop on autism. Nonetheless, this study showed that teachers lacked knowledge on autism. This shows that although media can contribute to awareness, in the sense of helping people become aware that there is a condition called autism, it does not necessarily lead to having knowledge about it. Although this study did not investigate how these participating teachers were misinformed on autism through the media, a study by Brewer, Zoanetti and Young, (2017) found that media exposure which linked crime and autism instilled more negative attitudes towards autistic people. This study revealed

that the opposite effect occurs when individuals attend autism-related educational programmes.

2.5. Factors which influence professionals to take part in training sessions

The term *information-seeking* has been used to describe a form of human behaviour and has been studied for the past 60 years. However, the early studies were restricted to information-seeking activities of researchers and scientists. The first study of information-seeking behaviour in the general population was conducted by James Krikelas in 1983. This model by Krikelas proposed four steps of information seeking. The first step was that of perceiving a need; secondly, the search itself; thirdly, finding the information; and lastly, making use of information which leads to either fulfilment of that need or not. Ingwersen and Järvelin (2005) argued that the ultimate aim of seeking information is to satisfy the information need, or to solve a problem, which is defined as not having enough knowledge (known as an anomalous state of knowledge). Belkin, Oddy and Brooks (1982) regard information as the tool to solve problems. Thus, as Case (2007) argued, an information need stems when an individual senses a problematic situation or information gap, in which his or her internal knowledge and beliefs, and model of the environment fail to suggest a path towards the satisfaction of his or her goals. According to Krikelas' model, to engage in autism training, paediatricians, teachers and police need to perceive a need for such information, they will then seek from where they can obtain it, and once they find this information, they attempt to use it in their everyday practice. Although paediatricians, teachers and police participants in research studies have shown that they feel they lack training in autism (e.g. Gardner, Campbell and Westdal (2019) - police; Martínez-Cayuelas *et al.*,

(2017) - paediatricians; and Ravet (2018) - teachers), the impact of their perceived need for more autism information on their actual participation in training is very under-researched.

Krikelas (1993) argued that this information needs to stem from within the context of a person's work environment and thus, the individual has a lot of significance to identify the training needs. The approach taken by this study to gather the views of the selected professionals follows from Krikelas' (1993) idea. One of the main interests of this study is to investigate the potential information needs of these professionals when supporting autistic people, that eventually motivate them to participate in autism training. Wilson (2000) claimed that the process of seeking also involves an analysis of various methods to acquire the information. Case (2002) described information-seeking as a conscious effort to achieve the right information in response to a need or gap in one's knowledge. When people make this conscious effort, and participate in training with an autonomous motivation, learning is enhanced (Ryan and Deci, 2000).

The crux of the information-seeking theory is in the 'perceived need'. The latter incites individuals to seek information. Cervera and Yang's study (1994) found that the personal attitude towards continuing professional education appears to be a determinant factor that influences professionals' participation in training. Specifically, having a positive attitude seems to increase the possibility of engaging in training. However, the problem of 'not knowing what you do not know' can prevent people from seeking information. A number of research studies in social psychology (Dunning, 2011; Pennycook, *et al.*, 2017) have clearly shown that people are very poor judges of their own ability levels. For example, the main social psychological phenomenon at

work in biased self-evaluation is the self-serving bias (e.g. Miller and Ross, 1975). People tend to regard positive events caused as a result of their own personality traits, but attribute negative events to external factors. Although to my knowledge there are no studies which investigated the self-serving-bias on people's willingness to attend training throughout their career, it could be that the fact that people fail to take responsibility for failure, will impede them from seeking knowledge in that particular area.

It could be that since autism does not form an integral part of their direct roles and responsibilities, the three groups of professionals might not perceive the need for autism training. Otherwise, they could recognise the need to learn more on autism and as the information theory states, this motivates them to engage in autism training. This information is still not accessible in literature, and one of the main aims of this study is to explore if there is a link between the perceived need for training and their motivation to participate in autism training.

Another psychological phenomenon that portrays biased self-evaluation is the 'better-than-average effect' (e.g. Alicke *et al.*, 1995; Brown, 1986). This phenomenon proposes that individuals believe that they know more and are confident that they perform better on certain tasks than the average person. Another phenomenon that exacerbates the two biases described above is the over-confidence phenomenon (Kahneman and Tversky, 1979). The latter suggests that people's confidence in how knowledgeable they are in a particular area does not reflect reality. This is clearly expressed by Heath, DeHoek, and Locatelli (2012, p. 3) when they said, '…we don't

know what we know, but we are confident we do…Not only are we wrong, but we are quite confident we are right!'

Another interesting phenomenon was mentioned by Charles Darwin (1871, p. 3). who said that, 'Ignorance more frequently begets confidence than does knowledge'. Inspired by this observation, Kruger and Dunning (1999) conducted a series of experiments and found that people who do not understand a problem and thus lack competence in a skill, tend to believe that they are knowledgeable. This phenomenon is known as 'illusory superiority'. On the other hand, those who are knowledgeable tend to underrate their abilities (illusory inferiority). In a study about adult participation in lifelong learning in Poland, Grześkowiak (2014) found that most participants believed that training is not needed for their work. Although this study did not investigate why these participants thought they did not need further training or from which disciplines they came, this effect may also be found in the three groups of professionals in this study.

2.5.1. The role of motivation in undertaking training

Wlodkowski (2008) described motivation as the power that provokes adults' natural urge to be competent in those areas that they consider important. When it comes to self-regulated learning, which as Pintrich (2000) states, is the ability of the learners to control and regulate their own learning through the use of cognitive and metacognitive strategies, motivation is crucial. This is so because motivational beliefs (e.g. believing that through the acquired knowledge they will be in a better position to support people more appropriately) could facilitate the decision to undertake training (Pintrich, 1999; Schunk and Zimmerman, 1998).

Earlier works on self-regulated learning outlined a difference between intrinsic and extrinsic motivation. While intrinsic motivation refers to doing an activity because it gives gratification (Ryan and Deci, 2000), extrinsic motivation is acquired when something is done because it leads to a rewarding outcome (Deci *et al.*, 1991). In information-seeking behaviour, the information need *per se* could be regarded as the reason for searching information, and the acquisition of this information to help them solve a problem, is the reward. Thus, when it comes to professionals attending training, very little is known about how this awareness of missing information motivates them to attend professional training that helps them acquire this knowledge. Further empirical studies are needed to investigate if the identification of the need on its own has the capacity to actually motivate professionals to attend training.

To explain motivation, a number of theories have been developed. In his seminal work, Houle (1961) focused on adults' motivation to continue searching for training after their years of formal education. Houle (1961) categorised the motivation of adults' participation in continued learning into three areas: (i) goal-oriented, (ii) activity-oriented and (iii) learning-oriented. The main motivation of goal-oriented adults comes from their need for education or because they have a personal interest in that area. A study by Pintrich and Zusho (2002) has shown that students with greater personal interest in a topic, and those who believe that the learning activity is useful, are more likely to engage in self-regulated learning.

An activity-oriented adults' main drive depends on the amount of social experiences with other adults such an opportunity is likely to provide. For example, their main motive would be to meet new people and make friends. On the other hand, learning-oriented

adults are those who believe that it is their duty to further their training and in turn, such action is perceived as enhancing their lives. A study by Strong and Harder (2010) investigated adults' motive for their participation in the Master Gardener Programme and found that it was motivation to learn that instigated participation in this programme. For instance, participants claimed that they participated 'to feed an appetite for knowledge' and 'to satisfy an intellectual curiosity' (Strong and Harder, p. 6). Houle (1961) argued that learning-oriented adults, like the participants in Strong and Harder (2010), have a strong desire to learn and believe that continuous learning is their responsibility to improve their practice.

2.5.2. Presenting training in a way that could effectively reach the target audience

It would be futile if a great deal of energy is invested in designing a very good training programme and then the target professionals are not properly reached. Thus, it is very important not to overlook how training is presented to the target audience because this could have an impact on professionals' decision on whether to undertake training or not. Marketing, which has the principal objective of influencing behaviour, plays an important role in encouraging individuals to engage in training. Kotler and Zaltman (1971) put forward the idea of applying marketing principles to meet societal objectives, and coined the term *'social marketing'*. In the case of this study, it could be argued that having professionals well-informed on how to support autistic people is a societal objective. Cevera and Yang (1994) emphasised that efforts should be made to improve the image of continuing professional education programmes. Hence, this study does not stop at exploring those factors that make an awareness training effective but

intends to delve into those issues that make professionals keen to go to training. These elements could then be used when promoting the training.

Robinson (1998) put forward a seven-step sequential process through which social marketing can affect behaviour change. These steps are considered important for this study as they can provide insight into understanding how human behaviour is influenced by the conveyed message. In other words, these steps can help this study to understand better what underlying factors related to the image that the training portrays, could encourage professionals to undertake further training. The first step is *aspiration*, in which the goal is to ensure that what is being provided is in line with the receivers' hopes and desires. Thus, to increase the likelihood that professionals engage in training, the image portrayed needs to reflect this. The second stage is *desire* in which the message delivered needs to be strong enough to instil the desire to undertake the training. The next step points at the effectiveness of the training to equip them with the necessary skills that will help them to do their job better. The fourth step highlights the importance of *real outcomes* if they engage in training, such as having the opportunity to listen to the experience of autistic individuals, or that a book will be given. All these factors aim to instil a sense of optimism. The fifth stage is to convince the audience that it is very feasible to attend the promoted training. It would be more useful if individuals similar to the audience and who have undertaken this training, act as social models by encouraging others to participate. The sixth stage is *stimulation* in which stimuli are used to lead to action. For example, at this stage the target professionals should take real measures to engage in training. The last step that Robinson (1998) described is *reinforcement*, in which the positive experience will form a new habit of continuing to search about that particular topic.

Robinson's seven-step process is regarded very relevant to this thesis as it puts emphasis on the necessity to study the training needs of target populations and to explore those factors that are likely to make training more appealing to them. Such information could then be used during the marketing process to encourage professionals to take up the training, as well as in the formulation of the training.

2.5.3. Training and learning culture in Malta

Today, there is more emphasis on learning throughout one's life in many countries of the world (Aspin and Chapman, 2007). The European Union has repeatedly emphasised the importance of lifelong learning in strategic documents such as the 'Education and Training strategy 2010' (Office Journal of the European Union, 2004) and 'Education and Training Strategy 2020' (Office Journal of the European Union, 2009). In the latter document, the target participation rate of adults engaging in learning activities by 2020 was 15%. Looking at figures for 2010, the average participation of adults aged 25 to 64 years among the 27 EU countries was only of 9%. In 2014, this rate rose to 11% (Eurostat, 2016) but it is still considered very low. However, this survey has shown that there are countries which are doing very well. Denmark, for example, in 2014 had a participation rate of 32%. This could be due to their Government's expenditure on education (7% in 2013, 2% more than the EU average). However, there have been no data available on the most common topics which adults in these countries are choosing to study, and the reasons underlying their motivation.

In 2014, adult participation in lifelong learning in Malta was 7%, making it about 4% lower than the EU average. However, data has shown that the lack of participation in Malta is mostly amongst people with less education. People with more educational

qualifications in Malta follow the EU average participation rate. However, no data are available about which disciplines Maltese are more likely to engage in further training. Malta is investing in the sector of lifelong learning and has developed a national strategy (2020) to ensure that all adults, including the highly qualified, can benefit significantly from lifelong learning (Ministry for Education and Employment, 2015). In 2012, the National Commission for Further and Higher Education (NCFHE) in Malta was founded with the intention,

> …to foster the development and achievement of excellence in further and higher education in Malta through research, effective licensing, accreditation, quality assurance and recognition of qualifications established under the Malta Qualifications Framework (Ministry for Education and Employment, 2012, p. 5).

This was a very important step in Malta because this commission is serving as a body that monitors and regulates all the educational programmes that are being offered.

2.6. Potential barriers to foster a training culture in Malta

In addition to Malta's attempts to cultivate a learning culture, there are other factors which may hinder opportunities for training participation. Literature has shown a number of barriers that could hinder the participation of adults in lifelong education. For instance, Cross (1981) in her work on adults as learners, has identified three different barriers namely: (i) situational, (ii) institutional and (iii) dispositional barriers. Although more than thirty years have passed, Cross' work remains the most influential and is the most frequently cited on barriers to adult learning. Situational barriers stem from the personal life situation of an individual. A study by Rubenson and Desjardins (2009) found that situational barriers are more common in early to middle-aged adults.

Women were identified as more inclined to refer to situational barriers, particularly due to family responsibilities.

Institutional or structural barriers include practices and procedures (such as lack of opportunities, high registration fees, or inconvenient times when training is offered) that discourage or preclude individuals from participating in educational programmes. These barriers show that the system is not in-tune with the participants' needs. Thus, what is being offered could not be reached by the target population to which the educational programmes were being aimed. For instance, various studies have identified time constraints and cost factors as the main obstacles highlighted by adults who are not participating in learning (Gould, Drey, and Berridge, 2007; Power, *et al.*, 2008; Sturrock and Lennie, 2009).

Dispositional barriers refer to the thinking about furthering their knowledge derived from their past early school experiences. For instance, if people think that they are not able to continue learning new things, or that they are too old to return to the 'school benches', it is likely that such belief prevents them from participating in educational programmes. Gorard and Smith (2007) put a lot of weight on the individual's initial experience of schooling and suggest that such experience will determine a 'learner identity' that will continue into adulthood. Gorard and Smith (2007) found that dispositional barriers are more common in older adults and those who are low-skilled or have low education. There are a number of studies which revealed that individuals were not satisfied with the quality of previous training being offered (Grześkowiak, 2014; Maharaj, 2013; Opfer and Pedder, 2010; Recker-Hughes *et al.*, 2010). However,

there is no data on whether such experience could also serve as a dispositional barrier to engage in other potential learning activities.

The literature about potential barriers to adult learning participation, very often focused on what is hindering participants and potential participants from accessing lifelong learning. However, studies seem to overlook what could be the potential barriers for those individuals who have not participated in adult learning and who expressed no intention to participate. This group was studied by Roosmaa and Saar (2016) where 19 EU countries were analysed and found several country differences in all types of barriers perceived. For instance, dispositional barriers are most prominent in all post-socialist countries and in Southern Europe.

However, although a good number of research studies explored potential barriers to adult learning, research is still very limited about the effectiveness of potential strategies to address these barriers and to subsequently encourage people to engage in training. There is also a dearth of knowledge about strategies that could motivate people to undertake courses to enrich their knowledge about a particular topic. International and national work tend to focus on the importance and the implications of learning activities while not giving enough attention to an important aspect, that of effectively mobilising people to undertake training to seek information.

2.7. Procedure used for searching the literature

2.7.1. Main key search terms

A comprehensive search was conducted to review the literature on training. The review was conducted mainly through electronic searches using the following databases: University of Birmingham, Google Scholar, and PschInfo, and through the social networking site ResearchGate. The exact key search terms used, including the number of studies found and how many were rejected or retained are outlined in Table 1. These terms reflect the main purpose of this study, that of exploring the issues in developing a training programme about autism for paediatricians, mainstream secondary school teachers and police officers.

The primary aim of the search was to review literature on training for professionals to help them understand topics (such as autism) that usually are not directly related to their jobs. The underpinning reason for my interest in this search was the idea that enhancing professionals' understanding on such topics is likely to have an impact on their daily practice (e.g. when meeting autistic people, such understanding could better guide the support provided). The search also included literature on how information-seeking behaviour is triggered in individuals, that is, what are the potential factors that encourage people to gain more knowledge about a particular topic and what motivates them to attend training programmes to gain such knowledge. This search was deemed necessary because the objective of this study does not focus solely on the factors involved in developing a training programme for the selected professionals, but it also attempted to obtain data on the individuals who would be receiving the training, such

as their training culture and their motivation for learning. I kept in mind the focus of this study and thus, studies about paediatricians, mainstream teachers and police officers were searched. This search was limited to their perspectives on training in general, their motivation to engage in training, their knowledge on autism and their experience with autistic people, and the barriers that hinder them from participating in autism training.

Table 1. Number of studies found using the search terms for this study

Search terms	Database	Number of studies	Refined by	Studies after refinement	Rejected at title	Rejected at abstract	Retained	Duplicates
Awareness-raising	University of Birmingham	17,259	Type included: Articles & Dissertations Subject included: Social Sciences	1,975	1,691	279	5	1
	Psychinfo	18	Excluded: Newsletter & Magazine articles, Legal/Government Documents	11	7	4	0	0
	Google scholar	37,300	With the exact phrase: 'awareness-raising' In the title of the article	693	536	153	4	0
	ResearchGate	1000+	Stopped at 100	100	93	6	1	0
Awareness-raising for professionals	University of Birmingham	1,744	Type included: Articles & Dissertations	1,312	1,195	102	15	4
	Psychinfo	8	No refinement	8	1	0	0	0
	Google scholar	16,600	With at least one of the words: 'Professionals' in the title of the article	7	5	2	0	0
	ResearchGate	100+	N/A stopped at 100	100+	62	23	4	0
Awareness-raising training in autism	University of Birmingham	62	Type included: Articles & Dissertations	42	29	12	4	2
	Psychinfo	1	N/A	1	1	0	0	0

Search terms	Database	Number of studies	Refined by	Studies after refinement	Rejected at title	Rejected at abstract	Retained	Duplicates
	Google scholar	1,870	With the exact phrase: 'awareness training' With at least one of the words: 'professionals' Without the words: 'parents' Anywhere in the article	324	311	7	3	0
	ResearchGate	12		12	10	1	1	0
Training about autism in Malta	University of Birmingham	235	Type included: Articles and dissertations	192	173	18	1	0
	Psychinfo	3	N/A	3	3	0	0	0
	Google scholar	1,220	With at least one of the words: 'Paediatricians' Without the word: 'parents'	16	11	5	0	0
			With at least one of the words: 'Mainstream secondary school teachers' Without the words: 'parents' and 'medical'	98	91	7	1	0
			With at least one of the words: 'police. Without the words: 'parents' and 'medical'	16	16	0	0	0
	ResearchGate	100+		100	56	43	1	0
Information-seeking behaviour of paediatricians	University of Birmingham	248	Type included: Articles and dissertations	134	126	6	2	1

Search terms	Database	Number of studies	Refined by	Studies after refinement	Rejected at title	Rejected at abstract	Retained	Duplicates
			Subject included: 'information-seeking behaviour' and information seeking'					
	Psychinfo	0		0	0	0	0	0
	Google Scholar	3,860	With at least one of the word: 'paediatricians' Without the words: 'parents' and 'nurses'	363	304	53	6	0
	ResearchGate	3		3	2	0	0	0
Information-seeking behaviour of mainstream school teachers	University of Birmingham	6	No refinement	6	4	1	1	0
	Psychinfo	1		1	0	0	0	0
	Google Scholar	6,180	With at least one of the words: 'mainstream secondary school' Without the words: 'primary' 'parents' 'teaching Assistant'	75	66	9	0	0
	ResearchGate	1000+	stopped at 100	100	96	4	0	0
Information-seeking behaviour of police	University of Birmingham	7	No refinement	7	3	1	3	2
	Psychinfo	1	No refinement	1	1	0	0	0
	Google Scholar	7,150	With at least one of the words:	4	0	0	2	0

Search terms	Database	Number of studies	Refined by	Studies after refinement	Rejected at title	Rejected at abstract	Retained	Duplicates
			'police' in the title of the article					
	ResearchGate	10	N/A	10	7	2	0	0
Paediatricians' training on autism	University of Birmingham	3,888	Type included: Articles and Dissertations Subject included: 'paediatrics'	282	209	67	6	2
	Psychinfo	0		0	0	0	0	0
	Google scholar	15,800	With the exact word: 'training' With at least one of the words: 'paediatricians' Without the words: 'parents' 'medical'	487	463	21	3	0
	ResearchGate	10		10	6	2	0	0
Autism training for mainstream secondary school teachers	University of Birmingham	6,447	Type Included: Dissertations and articles Subject included: 'secondary education', 'teachers' and 'mainstreaming'	716	621	62	33	6
	Psychinfo	15		15	15	0	0	0
	Google scholar	17,000	With the exact word: 'autism training' With at least one of the words: 'training' 'teachers'	277	244	31	2	0

Search terms	Database	Number of studies	Refined by	Studies after refinement	Rejected at title	Rejected at abstract	Retained	Duplicates
	ResearchGate	1000+	Stopped at 100	100	88	10	2	0
Autism training for police	University of Birmingham	5,954	Types included: Dissertation, articles Subject included: autism	263	211	41	11	3
	Psychinfo	79	Document type: Journal article	2	2	0	0	0
	Google scholar	16,000	with the exact phrase: 'training for police' With at least one of the words: 'autism"	120	64	47	9	0
	ResearchGate	10		10	4	1	5	0
Motivation for learning	University of Birmingham	813,128	Type included: peer reviewed journals Subject included: 'learning motivation'	1,922 Stopped at 100	64	30	6	1
	Psychinfo	1,259	Document type included: Journal articles Topic included: 'Workplace issues'	19	17	1	1	0
	Google scholar	1,510	With the exact phrase: 'motivation for learning' in the title of the article	445	366	72	7	0
	ResearchGate	1000+	N/A	stopped at 100	80	14	5	0

2.7.2. Inclusion/exclusion criteria for the search

At the time of the literature review, the search was limited to studies from 1997 to 2017, as the objective was to explore methods used in recent years to raise awareness on autism among different professionals. However, since I conducted the literature review in the initial phase of the research process, I made sure to continue looking for relevant new publications during the whole process. When deemed that such recent studies (post 2017) would provide an important dimension to my study, these were also included. For practical reasons only studies in the English language were included. The objective of all included studies was that of raising awareness on a particular area. However, those studies which focused on raising awareness to the general public were excluded, since the aim of this study was to explore the issues regarding professionals, rather than a campaign addressed to the general public. The type of training that this study was after, included practical strategies aimed to improve the daily practice of that particular profession.

As a quality control measure, the majority of the studies included were published in peer-reviewed journals, and it excluded articles that were written on other sources such as newspapers. The Maltese context was also taken into consideration during the process of deciding which studies to include. The results were checked to ascertain that they are relevant to the Maltese context and whether they tally with the results of similar research studies (See Appendix 1 for more details). There was no restriction on the topics being studied to raise awareness. Papers on awareness-raising delivered to professionals about other topics were not excluded since the study needs to explore

elements in training that appear to have a positive effect on the learning of professionals.

With regards to the studies' participants, of the 30 studies selected, 10 involved paediatricians, 10 related to teaching staff and 10 to the police. The selected studies in Tables 2, 3 and 4 were considered the most relevant to the topic of this thesis. The majority of the papers found were focused on the knowledge of autism that these professionals possess and the effectiveness of training programmes. Studies on those factors that underpin professionals' motivation to participate in training, and the literature on the daily encounters of professionals with autistic people, are rather limited. This shows a gap in the literature which this study attempts to address. As it is essential to know how well-informed professionals are on autism, it is also important to study how useful information about autism can reach these professionals, and how it can be translated to their daily practice.

2.8. The three groups of professionals in this study

Table 1 gave an overview of the existent literature about my research topic. It shows that although training for professionals is gaining interest amongst researchers, when it comes to the selected three groups of this study, it is observed that there is a shortage of studies.

The following three sections will focus primarily on the three groups of professionals in this study. Each section will provide details on a particular profession. It will include information about their encounters with autistic people. Reference will be made to a number of studies which shed light on the professionals' autism knowledge, their

current participation in autism training and its impact on their practice, as well as the repercussions of their lack of training on the support provided to autistic people.

2.9. Paediatricians and autism knowledge

The role of paediatricians in the identification and management of autism is of utmost importance. They are generally amongst the first healthcare professionals with whom families with young children make contact. This initial period is doubtless a critical one to identify and diagnose autism. A number of studies have indicated that parents have a lot of trust in their paediatricians (Heneghan, Mercer and DeLeone, 2004; Moseley, *et al.*, 2006). Although there have been no studies about the trust of Maltese parents in paediatricians, in a recent public opinion survey in the EU, the Maltese people rated medical staff as the most trusted profession (85% compared to the 80% average in the EU) (Standard Eurobarometer 94, 2020-2021). This suggests that when concerned about their child's development, parents in Malta are likely to refer to the medical profession for advice. In Malta when there is a concern about atypical development, children are referred to the Child Development and Assessment Unit (CDAU). The main role of this unit is to assess the developmental needs of those young children who are referred to them. Throughout the years, one of the main difficulties that this service has experienced is that families have to wait too long to be assessed. However, recently the waiting time has dropped from 18 months in 2012 to two months in 2016 (Fearne, 2016). As from its inception, the multidisciplinary team working in this unit has always been headed by paediatricians.

There are various studies that have analysed paediatricians' knowledge on autism and found that their knowledge is inadequate (Cambell, 2008; Çitil *et al.*, 2021; Effatpanah *et al.*, 2019; Kharti *et al.*, 2011; Martínez-Cayuelas *et al.*, 2017; Suchowierska and Walczak, 2013). For instance, although the majority (72%) of paediatricians participating in Kharti and colleagues' study (2011) regarded autism as a consequence of a genetic cause, it is noteworthy that a remarkable number (22%) presumed that autism could happen as a result of neglect. Thus, this shows that they do not understand that autism is a neurological disorder, and such beliefs are likely to have an impact on their approach with parents. Indeed, Hennel et al. (2016) showed that parents in Australia were not satisfied with the support given by paediatricians. Although paediatricians have an essential role in the diagnostic process, the majority of paediatricians (91%) in the Kharti et al.'s (2011) study also reported that they found it difficult to diagnose autism. However, this study did not investigate what paediatricians found difficult and what were the factors that made only 9% of participating paediatricians feel confident in diagnosing cases of autism. A study by Austriaco et al. (2019) also found that the participating medical students and paediatric trainees did not feel comfortable providing care to autistic individuals during an acute medical illness. The majority of the studies however, focused mainly on general knowledge on autism (e.g. the incidence of autism, ratio of boys and girls, behavioural characteristics) rather than knowledge that could be transferred to their practice when working with autistic children (e.g. the issue of heterogeneity in autism, especially the subtle signs of autism which could be easily overlooked, that unfamiliar situations could cause a lot of anxiety, and that you need to build a relationship with the child before assessing him or her).

2.9.1. Paediatricians' training on autism

The lack of paediatricians' knowledge on autism found in studies reported by Cambell, (2008); Çitil *et al*., 2021; Kharti *et al*., (2011) and Suchowierska and Walczak (2013) implies that their initial training does not give them enough knowledge on autism. In Malta, the initial training for paediatricians follows the same curriculum as that of the UK. To my knowledge there are no published studies that explored English paediatricians' perspectives about how well their initial training prepares them to support autistic children. The situation is similar in Malta, there is dearth of research on the knowledge of Maltese paediatricians on autism obtained through their initial training. On the other hand, in a USA-based study, paediatricians claimed that only a small portion of their initial training dealt with autism (Finke, Drager and Ash, 2010). During their initial training, paediatricians both nationally and internationally, are given hands-on experience in hospitals and in the community. This in turn increases their likelihood of meeting autistic individuals. Nonetheless, paediatricians' knowledge following their initial training is still very limited (Finke, Drager and Ash, 2010). Research is also scarce on the knowledge of consultant paediatricians who are supervising trainee paediatricians. More research in this area could gain insight into the information being transferred to trainee paediatricians and how it is being done.

The importance of ongoing training is stated in both local and various international guidelines of paediatricians which emphasise the need to attend Continuing Professional Development (CPD) courses. This is also emphasised in the latest strategy (2021 – 2024, p. 22) published by the Royal College of Paediatrics and Child

Health (RCPCH) which stated that: ‘Once a paediatrician has completed training, career-long learning and development need to continue’.

However, there is no research about paediatricians’ attendance in training about autism and the reasons underlying their decision to attend. In a study by Swanson et al. (2014), paediatric providers improved their knowledge as a result of a two-day intensive training related to autism. This also led to positively changing their screening practice with a significant increase (85%) in diagnostic identification of autistic children. These findings correspond with the findings of another study by Kairys and Petrova (2016) which showed that the paediatricians who participated in an educational programme on autism were more likely to use autism-specific screening tools and were more capable of managing autistic children. These findings support the importance of autism training to enhance practice. Nevertheless, opportunities for autism training may be scarce. Paediatricians participating in a study by Finke, Drager and Ash (2010) claimed that there are not enough courses that they can take on autism. This study also revealed that there is an existing lack of interest among paediatricians to attend training on autism. These two may well be interlinked, as lack of interest among paediatricians could lead to a low demand for training. Subsequently, training providers may not feel the need to organise specific training for these professionals which will in turn result in an overall lack of autism knowledge among paediatricians.

A personal communication that I had with a Maltese lead paediatrician at the CDAU, during the initial stages of my study, supports the findings of Finke, Drager and Ash, (2010) in terms of a lack of interest among Maltese paediatricians to attend courses about autism. Little is known about the reasons underlying such lack of interest. At the

same time, paediatricians strongly believe that they should be involved in the assessment and treatment of autism (O'Keeffe and McNicholas, 2011). More research is needed to explore paediatricians' judgement of their personal knowledge about autism and the value they attribute to investing in more knowledge on autism, since they may only meet autistic people occasionally in the course of their work. One paediatrician in Finke and colleagues' study (2010, p. 258) said: 'I don't have the interest you have in autism. I read about autism to maintain basic competency'.

Such an attitude is underpinned by a perception that basic knowledge about autism is sufficient, and shows that paediatricians may not see the need to know more about autism. In his study on information-seeking behaviour Krikelas (1993, p. 7) emphasised 'the need' and stated that: 'information seeking begins when someone perceives that the current state of possessed knowledge is less than that needed to deal with some issue (or problem)'.

Not seeing the need to learn more about something will condition one's behaviour to do nothing to seek and acquire more information about that area. This concept is closely connected to motivation. No studies have investigated the factors that may contribute to paediatricians' motivation or lack of it to learn more about autism. Understanding this may help to build autism training that is more appealing to paediatricians.

2.9.2. The impact of training on the paediatricians' practice

It is important that any training will eventually have a positive impact on practice. The community paediatric providers in Swanson et al.'s study (2014) showed that following

the training, they were more able to detect autism at earlier stages. However, this study did not investigate which elements in the training helped them increase their autism understanding and improve their practice. The studies that were conducted about training of paediatricians on autism focused mainly on the identification of autism (see Table 2). There appear to be no studies about how training will help paediatricians to become better able to appropriately support autistic people and their parents.

To facilitate the transfer of knowledge, it might also be useful to study the learning styles of the particular group that is going to receive the training. Research has indicated that there is a correlation between an individual's learning style and their preference for a particular subject area. A person's learning style may determine his/her preferences for specific teaching methods (Pashler *et al.*, 2009). There is very limited research about whether there is a preferred learning style among paediatricians, or whether this varies significantly from one paediatrician to another. Indeed, only one study considered the learning styles of paediatricians in relation to their education training, and no single predominant learning style was found (Shaikh, 2015). More investigation about the learning styles of paediatricians may help training providers to build training sessions that appeal specifically to them.

2.9.3. Repercussions of a lack of training in autism for paediatricians

International studies have indicated that when expressing their concerns with paediatricians, parents expect to receive a clear explanation as to whether their concerns are real, and when problems exist, they expect practical advice on how to address the problem (Whitaker, 2002; Wolanczyk, 2012). Although research shows that parents' initial concerns are usually correct (Richards, Mossey, and Robins, 2016;

Zuckerman, Lindly and Sinche, 2015) a study in France revealed that when parents expressed their first concerns to paediatricians, the latter trivialised such concerns and told parents that the difficulties that they were worried about would fade away as their child grows up (Planche, Lazartigues and Lemonioer, 2004). In line with this finding, The National Autism Plan for Children in the UK (Le Couteur, 2003) claims that the first concerns expressed by parents are often not appropriately dealt with by professionals who frequently interpret their doubts as excessive anxiety.

Doubtless, this situation delays the process of early identification of autism. Indeed, although research indicates that autism can often be reliably diagnosed by the age of 24 months (Guthrie *et al.*, 2013; Johnson and Myers, 2007) and in some instances even before (Chawarska *et al.*, 2007), it appears that on average, diagnosis is delayed until 3 years (Daniels and Mandell, 2013). Delaying the diagnosis process automatically prolongs the commencement of intervention and concurrently, the benefits of early intervention. This is concerning since intervention seems to be more effective in younger children and tends to have more long-term effects (Dawson *et al.*, 2010; Filipek *et al.*, 2000). Given that autism is not a static brain disorder (Dawson, 2008) and in light of the plasticity of the human brain, early intervention has the power to alter the brain's structure.

Additionally, misdiagnosis of autism is also another factor that hinders the benefits of early intervention, since providing inappropriate intervention will fail to address the real needs. Research findings show that being unable to detect the early impairments, and in turn, failing to address such difficulties effectively, have long-lasting negative consequences (Johnson and Myers, 2007; Warren and Stone, 2011). Losing precious

time would mean missing crucial developmental opportunities that deprive the autistic child to acquire essential skills, and in some instances, such deprivation could also further disrupt brain development (Mundy and Neal, 2001).

However, the paediatricians' role does not stop at recognising the first signs of autism and giving the diagnosis, but it also extends to supporting parents following the diagnosis. Previous research carried out in USA, UK and Australia have consistently outlined the concern of parents of not receiving enough information about autism and possible paths they could take to help their child post-diagnosis in the best way (Bromley *et al.*, 2004; Mansell and Morris, 2004; Rhoades, Scarpa, and Salley, 2007; Valentine *et al.*, 2009). A more recent Australian study which explored the relationship between parents' information needs and paediatricians' practice at autism diagnosis, found that parents were satisfied with the amount of time dedicated to discussing autism diagnosis. However, parents stressed the importance of an individualised plan of action with written information so that they can understand better their child's autism diagnosis (Hennel *et al.*, 2016). This study found a discrepancy between what parents consider important to know and the information they actually received from the paediatrician for example, in terms of early intervention. Thus, it seems that although paediatricians may be more able to detect autism early nowadays, there is still a vacuum on how to support parents afterwards.

Table 2. Studies on autism training involving paediatricians

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
1	Çitil *et al.* (2021)/Turkey	To evaluate the knowledge, beliefs and experiences of paediatric residents and paediatricians about autism	Questionnaire	101 (56 residents and 45 paediatricians)	Knowledge about diagnostic criteria was insufficient in both paediatricians and paediatric residents (including some misconceptions) More training is needed to ensure appropriate care and support for autistic children
2	Suhumaran, Leon and Wong (2021)/Singapore	To assess the awareness of autism among paediatricians and other healthcare professionals in Singapore and to identify potential gaps in their knowledge	Online survey via Google Forms	181 healthcare professionals	Many Paediatricians and primary healthcare professionals still lack the ability to correctly identify early warning signs of autism 73% of survey respondents did not receive any training on autism
3	Austriaco *et al.* (2019)/USA	To identify potential knowledge gaps among medical students and paediatric trainees when dealing with sick autistic children	Online survey	191 medical students and paediatric trainees	Both medical students and paediatric trainees reported insufficient knowledge on autism (they were unaware of the sensory issues in autistic children) Both groups were uncomfortable to provide care to sick autistic children Both groups emphasised the importance of more training to improve their ability to care for sick autistic children
4	Effatpanah *et al.* (2019)/Iran	To evaluate the autism knowledge and attitudes about autism among	Cross-sectional study	122 paediatricians and 90 health care workers	Misconceptions about autism were identified in both groups

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
		paediatricians and Health care workers			More training was recommended for both groups through a national educational programme
5	Martínez-Cayuelasa *et al.* (2017)/Spain	To assess the level of knowledge among paediatricians from tertiary care hospitals in different regions of Spain and detects areas that need improvement	Online questionnaire	157 paediatricians	Two-thirds (64%) were of the opinion that their autism knowledge is rather limited Overall sufficient level of knowledge about autism is existent but lack of awareness how to manage autistic individuals
6	Kairys and Petrova (2016)/USA	To determine the effects of paediatricians' participation in 'Activated Autism Practice' educational programme on their practice of autism screening and perception of autism management	Anonymous mailing survey	73 paediatricians	Paediatricians who had previously participated in the office-based "Activated Autism Practice" training programme were significantly more likely to report use of the autism-specific screening tool as compared to those who had not
7	Swanson *et al.* (2014)/USA	To evaluate the effectiveness of a training programme designed to enhance autism identification and assessment within community paediatric settings across the state.	Training involved an intensive two days programme. Self-reports were used to collect data from participants who took part in a training programme in the past 3.5 years.	27 community paediatric providers 20 paediatricians, 3 developmental & behavioural paediatricians, 3 paediatric nurse practitioners, and 1 paediatric neurologist	On average, the number of children diagnosed within practice by providers involved in this training increased by 85%. Training increased their confidence

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
			Forced-choice checklist to identify if a child has autism or not		
8	Suchowierska and Walczak (2013)/Poland	To study the level of knowledge on autism among Polish paediatricians	Questionnaire on the knowledge of autism was used	50 physicians specialised in paediatrics	Paediatricians' knowledge was insufficient in some areas
9	Kharti *et al.* (2011)/Nepal	To assess the knowledge and management practices of paediatricians about autism	Self-administered questionnaires	54 paediatricians	Most of the paediatricians in Nepal do not have enough knowledge about autism. Although some of the practice was good, they also had misconceptions as to managing autistic children
10	Finke, Drager and Ash (2010)/USA	To investigate the experiences of paediatricians in diagnosing young autistic children	Interviews	5 paediatricians	Paediatricians said that their initial training includes very limited information about autism. From CPD they usually gain no knowledge on autism either because there are not enough courses on autism or lack of interest from paediatricians to attend

2.10. Mainstream secondary school teachers and their knowledge of autism

As a consequence of the increasing prevalence of autism and developments in educational policies, schools are naturally coming in contact with many more children on the autism spectrum (Hess *et al.*, 2008; Kossyvaki and Papoudi, 2016). In England, there are approximately 120,000 school-aged autistic children and the majority of them (around 70%) attend mainstream schools (NAS, 2015; Department for Education, 2014). In Malta, the concept of inclusive education was hastily introduced in the early 1990's and mainstream teachers were practically faced with children with different needs including autism. However, they were not adequately trained to understand these differences and to accommodate their teaching styles according to the needs of these children (Bezzina and Camilleri, 2001). In 2014, an external audit on inclusive education in Malta was carried out by the European agency for special needs and inclusive education, which found that: '…the National policy for special needs and inclusive education is not adequately tailored to the Maltese context' (p. 41). Data from such audit showed that this policy is an identical copy of the one in the UK, and as a result, it was not deemed suitable because it lacks 'a clear rationale in line with the Maltese context' (p. 41).

Although Malta does not have official statistics that focus solely on the number of autistic children in the school system, agency data from 2014 reveals that 97% of pupils with SEN attend mainstream schools (European Agency for Development in Special Needs Education, 2014). Compared to other EU Member States, Malta has one of the highest proportions of learners with SEN in the mainstream education system. Malta

does not have any specialised schools for autistic pupils. Thus, students who are not educated in mainstream schools, attend resource centres (formerly known as special schools) which cater for students with a variety of conditions and learning difficulties.

Notwithstanding that it is assumed that there is a high amount of autistic students in mainstream schools, very little is known about the actual experience of all the stakeholders involved. Thus, gaining more insight about the inclusion of autistic students in mainstream may help to enhance the experience. As Willis (2009) and Ochs et al. (2001) argue, merely placing individuals with special needs with other peers does not automatically lead to meaningful inclusion. A whole-school approach is necessary to create an inclusive ethos in schools and to ensure that all the pupils will benefit from a positive educational experience (Atkins, 2009). Worldwide there is dearth of data about supporting autistic pupils in secondary mainstream schools. Humphrey and Symes (2011) argue that matters during this stage are potentially more difficult and complicated. The findings of a survey by the National Autistic Society (NAS) Northern Ireland (2012) revealed a discrepancy between the level of satisfaction reported by parents of primary and secondary school-aged students. More specifically, while half of the parents expressed satisfaction about autism understanding among primary school teachers, only 29 per cent stated that autism understanding of secondary school teachers was satisfactory. The discrepancy in this survey throws light on the importance of investigating the needs of autistic students in mainstream secondary schools and to explore whether they are being addressed.

2.10.1. Training on autism for mainstream secondary teachers

The significant increase in the number of autistic pupils places the onus on teaching staff to be more trained on how to employ proper methods and strategies for both teaching and managing behaviours of autistic students. Jordan and Jones (1999) argue that an effective route to meet the needs of autistic pupils is to provide training to school staff. Various studies have convincingly demonstrated that school staff have insufficient training to support adequately autistic pupils (Busby *et al.*, 2012; Gómez-Mari, Cervera and Tárraga-Mínguez, 2022; Lindsay *et al.*, 2014; McGregor and Campbell, 2001; Ravet 2018; Robertson, Chamberlain and Kasari, 2003; Rodríguez, Saldaña and Moreno, 2012; Syriopoulou-Delli *et al.*, 2012). All these studies emphasised the need for more autism training for teaching staff. When compared with other students with special needs, mainstream teachers reported that they find autistic pupils more difficult to include (House of Commons Education and Skills Committee, 2006).

Although Malta has a substantial amount of students with SEN in mainstream schools, the majority of teachers do not perceive their training as sufficient to put inclusive education into practice (European Agency for Special Needs and Inclusive Education, 2014). Malta does not have any data that show the number of mainstream teachers who have received autism training, and this lack of information makes it difficult to monitor mainstream teachers' interest in autism. However, when it comes to the perceptions of Maltese primary school teachers on training in general, Sammut (2013) found that although teachers value ongoing training, the majority of teachers do not feel the need to undertake further training. The sample of this study is merely

representative as it included only one primary school in Malta. Nevertheless, it underlines the necessity for further exploration to understand the underlying source of this thinking, and whether it represents the views of the general population of Maltese teachers. A UK-based study revealed that only five percent of teachers undertook autism training albeit the majority of them had an autistic child in their class (McGregor and Campbell, 2001). This was similar to a more recent study carried out in Malaysia which found that 49% of teachers never attended autism training (Wei and Yasin, 2017). Since there have not been any similar studies carried out in Malta, an analysis of whether Maltese mainstream teachers are attending training on autism could not be carried out.

Initial teacher training in Malta is provided solely by The Faculty of Education at The University of Malta. The initial training could follow either the Bachelor of Education degree route which consists of a four-year course or a one-year Post-Graduate Certificate of Education (PGCE). The 2014 external audit about special needs and inclusive education in Malta found that, the initial teacher training in Malta is still heavily embedded in a medical-deficit model rather than promoting inclusive pedagogical practice. Thus, it is very likely that teachers' practice is influenced by this model. Through the lens of this model, disability is perceived as a problem and it fails to promote ways of alternative teaching methods to accommodate the different learning needs of children. This audit data shows that less than 20% of Maltese teachers believe that their initial training enabled them to meet the needs of pupils with SEN. This finding resonates with other international studies (Busby *et al.*, 2012; Stidham, 2015).

The idea of continuous training for teachers was introduced in Malta in the year 1988 with a number of In-service Education and Training (INSET) courses for teachers and school administrators. In the beginning, the attendance for these courses was voluntary until 1994 when these in-service courses became mandatory. Originally, teachers in state schools were given the opportunity to participate in a one in-service 3-day course every two years and currently these courses are provided annually. According to Bezzina and Camilleri (2001) these courses have become very popular among teachers as these are being held during the scholastic year (and do not interfere with teachers' working conditions), they are free of charge, and provide a good opportunity for teachers to learn more about specific areas. However, Farrugia (1996) attributed this popularity to the remuneration reward that is granted as teachers can move on to a higher grade following such courses. To date, there have been no research work at international and on a national level to explore what motivates mainstream school teachers to attend in-service courses about autism.

When it comes to training about pupils with SEN, external audit data (2014) reveals that the existent initial and in-service training for teachers in Malta does not transmit the message that pupils with SEN are the responsibility of all educational professionals. This in turn, could potentially contribute to a perceived lack of need to consider training about inclusive education as a priority for mainstream school teachers. A number of studies (Blatchford *et al.*, 2009 a, b; Symes and Humphrey, 2012) suggest that very often the main responsibility of pupils with special needs is placed on the learning support educators (LSEs) and there is limited availability of in-service training in inclusive education.

This engendered idea that the pupils with SEN 'belong' to the LSE rather than being part of the mainstream class, is likely to foster a perception among teachers that autism training is not relevant to their teaching role. Consequently, this lack of perceived need is likely to undermine their motivation to seek more information about autism. Moreover, the external audit highlights that in Malta there is no recognised body to monitor the priorities of initial and in-service training. Following this audit report (2014) in 2015, the Institute for Education (IfE) was founded with the main aim of coordinating continuing professional learning for educators. The first INSET curriculum of 2016, did not include compulsory courses about autism for mainstream teachers, nor voluntary ones. The only course that was provided was a school-based course and it was offered to one resource centre. Thus, practically during the year 2016 mainstream teachers in Malta could not attend any training about autism because there were none available. Although it is recognised that this Maltese institute is at its very beginning, such unavailability of training on autism could also indicate that autism is not ranked as a high priority on the Maltese training agenda.

Research work at an international level suggests that mainstream teachers find autistic students most difficult to manage, to address their needs and to include them in mainstream class (Syriopoulou-Delli *et al.*, 2012; Wilmhurst and Brue, 2010). Half of the participating Greek teachers in Syriopoulou-Delli and colleagues' study (2012) expressed their beliefs that autistic students would benefit more from special schools rather than mainstream schools. Teachers in Booth and Ainscow's study (2002) claimed that educating autistic students should be the role of a special educator. Analysing this from the Effectance Motivational Theory (White, 1959), which argues that people have an innate motivation to feel competent and succeed in the tasks,

when people think that they cannot succeed in the presented task, it is very likely that they avoid that task. Thus, if mainstream teachers perceive themselves as not having the necessary skills to succeed in teaching autistic pupils, it is more likely that they do not feel motivated to attend training about autism to learn more about it. Research work illustrated that teachers with high self-efficacy are frequently more successful at including autistic students into the classroom (Ferraioli and Harris, 2011; Sharma *et al.*, 2012).

Unfortunately, very little is known about what exactly mainstream teachers find challenging about autistic pupils and what makes them think that they are unable to support them. Only one study addressed this gap in the literature and explored the challenges that mainstream teachers are experiencing when having autistic pupils in their class (Lindsay *et al.*, 2014). Although the sample size of 13 teachers in this Canada-based study was relatively small, in-depth interviews elicited the experiences of these teachers which may help to develop a strategy that will address these challenges. This could be implemented in the initial teacher training as well as in the general in-service courses that are offered to mainstream teachers. However, this study did not explore the views of mainstream teachers on how such challenges could be addressed. Hearing solutions from the grass root could have added value to the study, since experiencing a challenge every day on the ground is likely to give an important dimension to the solution. Addressing these challenges may contribute to increase teachers' confidence on supporting autistic individuals in mainstream classes. Research showed that when mainstream primary teachers are trained on autism, there is an increase in their confidence on how to deal with autistic students (Glashan, Mackay and Grieve, 2004).

2.10.2. The impact of training on teachers' practice in relation to autistic pupils

As it has been previously outlined, mainstream teachers' lack of confidence on their ability to meet the needs of autistic students could possibly impede them from undertaking training on autism. However, a number of studies show that mainstream school teachers consider training on autism as an effective strategy to facilitate the inclusion of autistic students (Lindsay *et al.*, 2014; Majoko, 2016). Majoko's study (2016) about the inclusion of autistic pupils in primary mainstream schools in Zimbabwe, found that teachers consider regular training on autism as one of the main promoters to the inclusion of autistic pupils. One of the participating teachers said that: 'Without in-service training, I am finding it challenging to include children with ASD [Autism Spectrum Disorder] in my classroom' (Majoko, 2016, p. 1434).

However, none of the studies explored what elements of the training helped teachers to understand autistic pupils better and what they found most useful to change their teaching style to accommodate autistic pupils. It seems that when teachers gain the understanding, there is a change in their practice. For instance, Kossyvaki, Jones and Guldberg (2014) found that following training to facilitate spontaneous communication in autistic children, teaching staff were able to change their interactive style, which resulted in an increase of the child's spontaneous communication.

Literature in the field of training teaching staff on autism considers training as one of the fundamental elements that accelerates the development of skills and eventually helps autistic children maximise their full potential (Bellini, Henry and Pratt, 2011; Jennett *et al.*, 2003; Morrier *et al.*, 2011; Simpson, Myle, and LaCava, 2008). However, the majority of these studies are about special education teachers rather than

mainstream teachers. A case-study design involving autistic students in both primary and secondary mainstream schools found that training may make autistic students less dependent on teaching assistants (TAs) (Emam and Farrell, 2009). Other studies also showed that training has an impact on teachers' attitude towards inclusion (Horrocks *et al.*, 2008; Huang and Wheeler, 2007). In the years to come it would be very useful to conduct more research in the UK about the impact of autism training on teachers' performance following the 2018's measure of introducing autism in the core learning of initial teachers' training.

Lack of training does not have a negative impact solely on autistic students but also on the educators themselves. Research shows that teaching autistic pupils may escalate teachers' vulnerability to stress and burnout. Studies reveal that these factors could eventually lead to gradual wearing away of teachers from working in the area of special education (Billingsley, Carlson, and Klein, 2004; Boyer and Gillespie, 2000). Indeed, the field of special education when compared to other areas, is dominated by very high rates of teachers' attrition (McLeskey, Tyler, and Flippin, 2004). Interestingly, the number of teaching years does not contribute to enhance educators' beliefs that they are capable of meeting the needs of autistic students (Brock *et al.*, 2014; Ruble, Usher and McGrew, 2011). On the other hand, Brock et al.'s study (2014) revealed that teachers with more experience in teaching autistic students, were less keen to engage in further professional development. This situation might serve as an eye-opener to further investigate how to motivate teachers to engage in CPD. As it has been previously outlined, several studies suggest that training plays a crucial role in educating autistic students. Frequently, the education system itself demotivates

teachers since it does not provide them with sufficient training that gives them knowledge and resources to help autistic students develop well at school (NAS, 2012).

2.10.3. Content of autism training for mainstream teachers

In order to ensure that autism training helps teachers gain new skills to support autistic students in an effective way, training must include relevant instruction, including evidence-based strategies, that are based on research (Suhrheinrich, 2011). Teachers in Peebles and Mendaglio's study (2014) claimed that the training provided to them was too theoretical and lacked practical strategies, making it ineffective. It is also necessary to provide opportunities to practice what they would have learned, while receiving coaching and feedback (Scheuermann *et al.*, 2003). Studies reveal that the absence of follow-up training and support restricts the proper execution of knowledge (Hall *et al.*, 2010; Smith *et al.*, 1992). Although research indicates that individualised coaching and mentoring are more effective models of professional development (Kretlow and Bartholomew, 2010), such approach is very lacking in schools (Russo, 2004).

Studies show that providing generic training is not useful. All TAs in Humphrey and Symes' (2011) study claimed that this kind of generic training was not useful for them. In the House of Commons' Health and Social Care Committee (13 April 2021) both Sir Norman Lamb (former UK Minister of State in the Department of Health) and Dr Ian Davidson (Autism Lead, the Royal College of Psychiatrists) strongly argued that generic training provided to staff does not enable them to support appropriately autistic people. On the other hand, when training is specific, it tends to be more effective. For instance, Kossyvaki and colleagues' (2014) specific training about how to increase

spontaneous communication appeared to be very effective. Also, in this study there were other elements which could have contributed to the effectiveness of the provided training: the staff was highly involved and the teaching methods seemed to help teaching staff to understand very well. More specifically, using staff videos of good practice helped teaching staff to understand principles in practice and also to reflect on their practice. It seems that understanding of principles in context facilitates transfer of knowledge.

Extensive literature has considered flexibility as a fundamental principle that leads to inclusive practice. The pupil's needs must be at the core of the educational practice, and schools and teachers need to be able to accommodate their curriculum and pedagogy according to these needs (Jordan, 2008). Thus, when providing autism training for mainstream school teachers, teachers need to be given autism understanding so that they can identify the needs of autistic pupils. Training should also extend to providing knowledge on how to adopt a flexible approach to accommodate for these needs. The lack of flexibility in mainstream teachers was highlighted as one of the main problems in Humphrey and Symes' (2011, p. 158) research work. One of the participating TAs stated that, '…some of the teachers…just don't know how to simplify it down to our students, any of the worksheets of anything like that'. In this study, the majority of TAs noted that they could observe an improvement in teachers' ability to understand the needs of autistic students. They claimed that the underlying factor motivating this change is that mainstream teachers are receiving more training on autism.

Working collaboratively with other important stakeholders is also a key focus of autism training for mainstream teachers. The participating TAs in Blatchford et al.'s (2009a, b) study reported that teachers did not understand their roles, and they felt undervalued in mainstream classes. The 2014 audit data about special education in Malta revealed that the initial teacher training fails to prepare teachers how to work together with other important stakeholders, including the parents.

Given that autistic individuals follow a different developmental path with differences in cognition, communication, and socialisation (APA, 2013) and since their learning style is different from that of typical children (Lawson, 2011; Jordan, 2008), it is more likely that they pose several challenges to the teachers (Jennett, Harris, and Mesibov, 2003; Scheuermann *et al.*, 2003). Such differences have an impact on all aspects of learning (Rogers and Vismara, 2008; Wilder *et al.*, 2005). If the response of teachers to the aforementioned characteristics is not in tune with the learning style of autistic students, learning will not occur and in some instances, it will also lead to regression. Over 80 percent of parents taking part in a survey by the NAS in Northern Ireland (2012) reported that as a consequence of lack of support in the school system, their children's social and communication skills had been impaired, while 71 percent of parents said that their children's educational progress had been negatively affected due to lack of support.

Moreover, in the UK, Government figures show that compared to typical children, autistic pupils are four times more likely to be given an exclusion (Department for Education, 2014). Additionally, almost 1 in 5 parents (18%) taking part in the NAS Northern Ireland survey (2012) reported occasions (with over 14% reported more than

three instances) where the school had requested them to take their child home before the time school finishes, excluding reasons of sickness. Research shows that autistic pupils are more likely to be bullied when compared with pupils with other SEN or typical children (Humphrey and Symes, 2010b; Wainscot *et al.*, 2008). When interviewing 36 autistic students in mainstream secondary schools, Humphrey and Symes, (2010a) found that when autistic students experience bullying they usually turn to the teachers for support. This finding was corroborated in a quantitative study done by the same authors where support from teachers was placed higher than other possible sources (e.g. classmates, parents and friends) (Humphrey and Symes, 2010b). These findings place significant weight on teachers and thus, gaining information about how best to support autistic students is essential. However, no studies have investigated the response of teachers when autistic students turn to them following episodes of bullying. Addressing this gap in knowledge may help to ensure that the right support is provided. Research for the NAS 'You Need to Know' campaign illustrated that education plays a significant role in the mental health of autistic individuals (NAS, 2010). If autistic students are not properly supported, the difficulties that they may encounter at school can negatively influence their self-esteem and cause a great deal of anxiety.

Table 3. Studies on autism training involving teaching staff

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
11	Gómez-Mari, Cervera and Tárraga-Mínguez (2022)/(13 different countries around the world – most in the USA)	To conduct a systematic review about teachers' knowledge of autism	Systematic review	25 articles were analysed (to evaluate teachers' knowledge most of the studies used a questionnaire, only one study used an interview and one study combined both methods)	Most of the reviewed articles revealed that teachers had limited knowledge on autism Misconceptions was found in most the studies reviewed Teachers who received previous training showed higher levels of knowledge
12	Giannopoulou et al. (2019)/Greece	To assess the knowledge of autism among nursery and primary mainstream teachers and to evaluate the impact of a half-day awareness training on their knowledge	Questionnaire developed for this study to assess the participants' autism knowledge before and after the training	67 mainstream nursery and primary school teachers	Teachers had a number of outdated views on autism Following the training, participants showed improvement in autism knowledge (both teachers with/without previous training in special education/autism showed significant increase in their knowledge – significantly higher change in teachers without previous knowledge)
13	Kearns, Mitton and Tompkins (2014)/Canada	To explore the impact of a training programme, and to consider challenges and best practices to build awareness and allies in our own higher-education context, as well as to help create better learning communities for LGBTQ youth and allies in schools.	Workshops evaluations provided by participants of Positive Space training programme I & II Pre-and post-online surveys Follow-up interviews with individuals and a small focus group	Number of participants not specified	Participants became more aware of the challenges that LGBTQ individuals face Training helped participants to identify instances in which they should intervene to stop homophobia and transphobia

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
14	Kossyvaki, Jones and Guldberg (2014)/UK	To look into staff practice and if this could be enhanced by building on their good practice and modify their interactive style	Action research	3 staff (1 teacher and 2 TAs) in autism specialist school and 6 autistic children	Following training (using staff videos of good practice) staff were able to change their interactive style and this led to an increased in children's spontaneous communication
15	Lindsay et al. (2013)/Canada	To explore educators' challenges in including autistic students in mainstream schools	In-depth interviews	13 educators who had experience teaching autistic pupils	Main challenges reported by teachers were about understanding and managing the behaviour of autistic pupils, socio-structural barriers (school policy, lack of training and resources) and creating an inclusive environment (lack of understanding from other teachers, students and parents)
16	Syriopoulou-Delli et al. (2012)/Greece	To examine Greek teachers' perceptions about the nature of autism and managing autistic pupils	Structured questionnaires	228 teachers (144 in mainstream schools)	Training seems to be strengthened when joined with experience of autistic students
17	Busby et al. (2012)/USA	To evaluate a study programme that aims to prepare teachers to work with students with disabilities, in particular autistic students	Nominal group technique was used	21 mainstream teachers 1 special educator 9 not employed in a teaching capacity	Participants felt that teachers need to be highly trained to be able to teach autistic students Participants think that general education teachers lack the basic knowledge and skills to be able to fully include autistic students Participants believe that the curriculum in teacher training programme does not prepare them to support students with different needs
18	Ravet (2011)/UK	To explore the effectiveness of the Postgraduate Certificate in autism and learning programme	Open-ended questionnaires	10 students from the Education, Health and the Voluntary sector	Participants' confidence and autism understanding were enhanced

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
		in meeting autistic students' needs. To see the impact on their professional practice	Semi-structured interviews A range of relevant documentation	who worked directly with learners with autism 7 Line managers 4 Funders	Their practice was improved and inter-professionalism was increased (excluding teachers)
19	Humphrey and Symes (2011)/UK	To explore the effectiveness of training of Teacher Assistants in relation to supporting autistic students	Semi-structured interviews	15 Teaching Assistants supporting autistic students	All participants believed that generic training on autism was not helpful
20	Syed and Hussein (2010)/Pakistan	To develop and evaluate an ADHD training program for teachers	A training programme for ADHD was developed and piloted in 3 schools Programme consisted of 2hr a day session for 5 days	49 teachers attended the programme	A week-long training programme found to be useful in increasing teachers' knowledge on ADHD and such knowledge was maintained 6months following training

2.11. Police officers' knowledge on autism

The main role of police is policing. 'Policing is securing compliance with existing laws and conformity with precepts of social order' (Saleh, 2016, p. 5) to ensure that every citizen is safe and protected from any harm and that people live in harmony in spite of existent diversities. Given that modern societies are highly characterised by diversities, nowadays policing has become much more needed to safeguard social order. A study on the Maltese population conducted by Savona-Ventura, Felice and Gullaimier (2010) revealed that the Maltese population is gradually becoming more cosmopolitan and this is mostly attributed to Malta joining the EU in 2004 and the massive influx of refugee immigrants. Notwithstanding these changes in the Maltese society, very little is known about how the police in Malta are trained to deal with these diversities.

The traditional policing model was gradually fading away at the dawn of the civil rights movement in the 1960s. Community policing was introduced and became more prominent in the 1980s in the USA and the UK. Tillman (2000) described community policing,

> …as bringing police and citizens together to prevent crime and solve problems, emphasizing the prevention of crime rather than the traditional policing method of responding to crime after it happens (Tillman, 2000, p. 1).

The strategy of police working closely with the communities was also adopted in Malta. The Police Force in Malta amounts to around 1,950 police officers in different ranks. The selected police section in this study was the police officers stationed around the ten districts in which Malta is divided. These police officers are considered as the front-

liners because, they are the first people to deal with everything that happens in the community. This section was chosen when community policing was not yet established. Indeed, Malta embarked on a community policing pilot project in 2019 in just one village in Malta. The plan is that community policing would be extended nationwide by 2023.

2.11.1. Contact between police officers and autistic individuals

District police are usually the first people who encounter autistic people exhibiting behaviour which they might consider suspicious. Nowadays, contact with autistic people is constantly growing (Debbaudt, 2013; Railey, Love and Campbell, 2020) and this could be attributed to the increasing prevalence of autism. Furthermore, more time is spent as adults than children, and numerous autistic adults are out in the community, often unsupervised. Symptoms of autism could also be seen as contributing factors to the increase in the likelihood of police encounters with autistic individuals since these could be associated with criminal offending. For instance, research suggests that impulsivity, obsession with specific interests, difficulties to understand the perceptions of others, and differences in social understanding are often regarded as responsible for unlawful acts (Attwood, 2006; Browning and Caulfield, 2011; Barry-Walsh and Mullen, 2004; Haskins and Silva, 2006; Howlin, 2004; Kristiansson and Sörman, 2008; Murrie *et al.*, 2002).

Other risk factors are underpinned by limited social functioning which tends to lead to social exclusion and low popularity (Farrington, 2005; Pakes and Winstone, 2007). There are a number of studies that speculate that there may be a link between symptoms of Asperger's syndrome and criminal behaviour including violence and

terrorism (Barry-Walsh and Mullen, 2004; Chen *et al.*, 2003; Haskins and Silva, 2006). However, these studies are purely based on suppositions and the researchers were inclined to explain offending behaviour as a result of autism symptoms, easily leading to confirmation bias. Indeed, these case studies did not investigate the number of times when these same symptoms did not result in any criminal behaviour.

Although robust evidence excludes a direct connection between autism and criminal behaviour (Mouridsen, 2012; Newman and Ghaziuddin, 2008) the manifestation of autism could be associated with unlawful behaviour (Bishop, 2008). Conversely, extensive literature suggests that autism characteristics *per se* are usually regarded as a strong prevention to one's involvement in crime. For instance, autistic people often tend to be rigidly attentive to abide by the laws and thus, they rarely act unlawful (Browning and Caulfield, 2011; Frith, 1991; Murrie *et al.*, 2002; Woodbury-Smith *et al.*, 2006). Research shows that it is the presence of additional psychiatric disorders to autism which increases the likelihood of committing criminal behaviour (Langstrom *et al.*, 2009; Newman and Ghaziuddin, 2008). Notwithstanding this evidence, compared to the typical population, studies based in the USA indicate that autistic people are seven times more likely to come in contact with the criminal justice system (Debbaudt, 2004). Thus, although research suggests that autism characteristics tend to make them more law-abiding citizens, their behaviour could still be regarded as suspicious and potentially be interpreted as unlawful.

Additionally, when autistic people are considered as suspects, it is likely that their autism makes them more vulnerable during the process. A difficulty to distinguish between their own actions and those of others, their susceptibility to high anxiety levels

in unfamiliar circumstances, and a tendency to use words without comprehending their true meaning, are all examples that lead to vulnerability (Allen *et al.*, 2008). Chown (2010) argues that the symptoms of autism in the eventuality of coming in contact with the criminal justice system often disadvantages autistic people. Due to their social naivety, during an interview with police officers, autistic people may unwittingly admit that they committed a crime which in reality they would not have done (Chown, 2010). Such situations could be the result of literal interpretation of events (Cederborg and Lamb, 2008), excessive anxiety or a, '…desire to please of a person with autism and willingness to accept an authority figure's version of events, even if untrue' (Debbaudt and Rothman, 2001, p. 22).

Moreover, in some instances the police's way of carrying interviews could be counterproductive for autistic people (North *et al.*, 2008). Crane and colleagues (2016) found that almost seven out of ten autistic adults were disturbed by their encounter with police. Moreover, it was reported that very often autistic adults experience frustration due to a lack of understanding of what is going on and what is expected from them.

Research shows that when unrecognised, the behaviour of an autistic person is likely to confuse people in the criminal justice system. For example, during interviews with police and court proceedings, autistic people may be regarded as very able and composed individuals, with a cooperative attitude (Maras and Bowler, 2012). As a consequence, their verbal ability may mask their real difficulties (Allen *et al.*, 2008). On the other hand, in some instances autistic people might be perceived as arrogant or indifferent (Archer and Hurley, 2013). Hence, when people in the justice system

examine these behaviours through a typical analysis, it is likely that misinterpretation will occur. Consequently, such misinterpretation will possibly negatively influence their judgment.

2.11.2. Training for new police recruits in Malta and in-service training on autism

In the USA, at the basic pre-service training, new police recruits receive a minimum of 8-15 hours of mental-health related training (Thompson, Reuland and Souweine, 2003). In their initial training police recruits in the UK have a section about protecting vulnerable people including people with mental health difficulties (College of Policing, 2018). In Malta, the training for new recruits is provided by the Police Academy with the assistance of the Institute of Forensic studies at the University of Malta. Very little is known about the content of the basic recruit course curriculum, and it seems that the Police National Curriculum focuses mainly on law, police rules and procedures. To date, there are no Maltese studies that explore police officers' satisfaction with this initial course in terms of how well it equips them to respond to the needs of different individuals in society.

Various international studies show that police officers are very dissatisfied with the provided training about people with mental health issues (Cooper, McLearen and Zapf, 2004; Husted, Charter and Perrou, 1995; Wells and Schafer, 2006). These studies reveal that frequently the allocated time for this area is a 'matter of minutes' (Husted, Charter and Perrou, 1995, p. 319) leaving them very confused on how to deal with people with mental health problems. A consistent finding in all these studies was that the majority of police officers expressed their wish to receive more training in this area. More recent studies have resonated the same findings. For instance, in a study based

at the South-eastern USA found that the provided training about people with mental disorders does not correspond with the existent guidelines (Laan, Ingram and Glidden, 2013).

Research on police officers' training about people with SEN is rather limited. The few studies that have been conducted show that police officers have inadequate training in this area. In a USA-based study conducted by Eadens et al. (2016) it was revealed that although the majority of the participating police officers were motivated to interact with people with intellectual disability, they expressed their concern of not having adequate training to do so. This lack of sufficient training was also found in Modell and Mak's (2008) study when assessing police officers' awareness on disabilities in California - 48 percent of police officers had never received any training on people with disabilities. While studies show that disability awareness among police officers is very limited, people with developmental disabilities are more susceptible to ending up victims of crime, with a probability of four to twelve times higher than people without disabilities (Modell and Mak, 2008; Sobsey *et al.*, 1995). In line with these research findings, it is more likely that autistic people will need police assistance. Povey (2013) claims that during vulnerable moments, people with disabilities turn to police and in return, expect protection from them. Certainly, to be able to provide such protection, 'it's vital that their needs and behaviours are understood and accounted for' (Povey, 2013, p. 12).

Autism can be considered as a social disability and in a number of cases it can also be related to mental health problems, which is often (around 71 percent) a comorbid in autistic people (Simonoff *et al.*, 2008). Nevertheless, it is very likely that the training

that deals with mental health problems or disability issues in general is not sufficient to understand and respond appropriately to the needs of autistic people. Difficulties arising from autism are likely to be invisible, and when not properly understood, they will possibly lead to confusion and misinterpretation. In terms of specific autism awareness training for police officers, Chown (2010) found that in the UK, 62 percent of respondents had no formal training related to autism and 30 percent had received very limited autism training from the police academy or other sources. Consistently, Povey (2013) claims that in the UK, police are not regularly trained about autism. Recent research revealed that in the UK only 37 percent of police officers had been trained on how to deal with autistic individuals (Crane *et al.*, 2016). In similar vein, in the USA, a study by Gardner, Campbell and Westdal (2019) found that 70 percent of police did not receive any training on autism. However, a number of States in the United States (e.g. Florida, Utah) require that police officers have relevant training on autism prior to start working as police, to ensure that they have adequate understanding to properly respond to the needs of autistic people. However, very little is known on the impact that this measure has on police's practice when supporting autistic individuals. For instance, there have been no comparative studies between those states in the USA who request police officers to undertake mandatory autism training and other States or countries where autism training is not compulsory.

Literature also indicates a discrepancy between autistic adults and mental health problems in relation to their experience with police officers. While the experience of autistic adults with police officers is generally negative, adults with mental illness consider their experience as good in most cases. Crane and colleagues (2016) found than 69 percent of autistic adults reported that they were dissatisfied with how police

officers treated them. This corresponds with the views of parents of autistic children whereby 74 percent disapproved of the way police officers dealt with their children. A recent Australia-based study by Gibbs and Haas (2020) found a discrepancy between autistic adults and their parents/carers' satisfaction with interactions between the police and autistic people. While autistic adults were largely unsatisfied with such interactions, parents/carers reported more satisfaction.

On the other hand, in a study about the perceptions and experiences of people with mental illness regarding their interaction with police, 72 percent of participants reported that they were happy with how they were treated by police officers and only 32 percent considered their interactions with the police as negative (Livingston *et al.*, 2014). One potential reason for this discrepancy could be that since very often autism is invisible, police officers are more likely to apply the same techniques that they use with citizens in the typical population to deal with autistic people. To address this difficulty, the NAS (UK) suggested that during their initial encounter with suspicious behaviour police officers ask: *'Do you have any difficulties that I may not be aware of?'* (Chown, 2009). Although this strategy might be useful to help police officers think about possible needs of the person rather than take prompt routine actions, police officers must be aware that the response of autistic people to this question can be unclear, due to their social communicative difficulties. Thus, such a strategy on its own is unlikely to help police officers adjust their style to address the real needs of autistic people. Police officers need to understand the communication and social difficulties of autistic people and how they think and behave due to their condition.

2.11.3. Motivation of police officers to attend autism training

Autistic people think and behave differently from the general population. They, thus present diverse challenges to the police, which consequently necessitate more training to acquire sufficient knowledge to better understand autistic individuals. Existent literature illustrates that knowledge about autism among police officers is lacking (Bishop, 2008; Modell and Mak, 2008). Eighty percent of the participating police officers in Modell and Mak's (2008) study did not have any knowledge about this condition and were thus, unable to accurately recognise autism. Moreover, 67 percent of the respondents in Chown's study (2009) admitted that they were unaware that they ever dealt with an autistic citizen. Such results raise eyebrows since it is very likely that they had dealt with an autistic person without being aware. This implies that they judged him or her through the typical lens, which very often presents with inaccurate information. Debbaudt (2013, p. 13) claimed that, '…training and information are key elements for police in order to manage contacts with people with autism safely, fairly and effectively'.

When professional training is not available, it is possible that people tend to be influenced from other indirect sources like the media or personal experiences of autistic people they might know. For instance, it is quite daunting that the response of 35 percent of police officers participating in Modell and Mak's (2008) study was that autism means 'Rain Man'. This finding sheds light on the role that the media automatically has on the acquisition of autism information, whereby in many occasions it promotes very narrow thinking including inaccurate stereotypes on autism, which contradict heavily the heterogeneity of autism. Extensive literature strongly indicates that police officers

are ill-informed on how to deal with autistic individuals and the need for further training on autism is echoed by all the stakeholders. Both parents and autistic adults taking part in the study carried out by Crane and colleagues (2016) emphasised the importance of further police training on autism. The need for autism awareness training was also emphasised in the paper by Archer and Hurley (2013) and in the Independent Commission on Mental Health and Policing (2013). Training is not intended to turn police officers into autism experts (Chown and Beavan, 2010) or to start diagnosing autism, but the main aim of awareness training is to help them to better understand autistic people and to respond appropriately to their particular needs.

The training offered to the police should aim to help them understand better how autistic people experience the world around them due to a difference in thinking, which subsequently influences their actions. Autism training should provide understanding on how autism characteristics make autistic people more vulnerable citizens. All this understanding should ultimately empower police officers to accommodate their techniques to successfully meet the needs of autistic people (Varga, 2012). To achieve the latter goal, in agreement with what several UK charities (e.g., Autism West Midlands, 2015; National Autistic Society, 2011) emphasise, it is imperative that autism specific training is provided to police officers, so that their responses will be specifically attuned to the needs of autistic individuals.

2.11.4. The consequences of a lack of knowledge on autism amongst the police

One of the main stumbling blocks that hinders learning is an attitude among learners whose judgement about their knowledge on a particular subject is not a realistic one. Through the information-seeking framework, overestimating one's knowledge about

autism is likely to result in a decreased perceived need to acquire more information about it. Consequently, this limits one's probability to participate in training opportunities, which in turn contributes further to one's lack of knowledge. This attitude was found in Chown's study (2009) which aimed to explore autism understanding among police officers in the USA. This study revealed that although police officers believed they had enough skills to deal with autistic people, this belief did not seem to be compatible with reality. Ill-informed response from police officers causes a great deal of stress for autistic people and their families, who at times, might have to go through frightening experiences. For instance, Melissa Jones, a 17-year-old on the spectrum, was arrested and eventually taken to court because the police mistakenly assumed that she was drunk. This had a very negative impact on her life and she also became suicidal (Feinstein, 2013). Similarly, Brian Bates was arrested by the police because his bizarre behaviour was mistakenly interpreted as being on drugs or drunk. Moreover, another case was reported in West London where an autistic teenager referred to as ZH, was handcuffed and restrained by the police after he jumped into the baths in Acton fully-clothed. It is clear that the police's actions in the aforementioned cases were motivated by an underlying common theme of misinterpretation. A behavioural difficulty linked with autism such as wandering and lack of eye contact, could be interpreted by police officers as suspicious, breaking the law, threatening or intoxicated (Debbaudt, 2007).

Archer and Hurley (2013) argue that in many circumstances autistic people enter the criminal justice system due to misunderstandings about their autism. The negative experience could also intensify to the limit that they end up in prison. Interestingly, prison data indicates that when compared to an average person in the general

population, an autistic person is three times more likely to be imprisoned (Birmingham City Council, 2012). In addition to the negative experiences that they may go through during their encounters with police officers and afterwards, insufficient knowledge also impacts on the ability of police officers to do their job effectively. Crane and colleagues (2016) found that more than one in five police officers in their study claimed they were unsatisfied with how they dealt with autistic individuals. The majority of respondents in the latter study revealed their frustration about the lack of provided opportunities to learn more about autism. Additionally, the absence of knowledge related to autism could jeopardise the safety of autistic people and the police officers themselves (Chown, 2010). Police participants in a number of studies emphasised that there was a huge need for more autism training related to police work (Christiansen, Minich and Clark, 2021; Gardner, Campbell and Wesdal, 2019; Swan and Perepa, 2019).

2.11.5. The impact of autism training on police practice

Literature is scarce on the effectiveness of autism training on police practice. However, studies in other areas provide insight into the importance of awareness training for police officers. Worldwide there are numerous training programmes about people with mental health problems designed for police officers. However, very few were properly evaluated to assess their effectiveness on the actual police officers' behaviour when dealing with people with mental illness.

To test the effectiveness of a training programme, Coleman and Cotton (2010) emphasise the importance of having a good research design. There are some studies that show that when police officers were provided training about people with mental health problems, such training had various effects on their daily practice. For example,

in a Canadian study conducted by Krameddine and colleagues (2013) the one-day role play training for police to improve their interaction with people with mental health problems proved to have a positive impact on the police officers' behaviour. The purpose of this training was solely to change behaviour rather than to acquire knowledge or change attitudes towards mental health. Following this training, the behaviour of police officers was meaningfully changed, for example in terms of improved communication and empathy. However, this training did not address knowledge and attitudes, in spite of the importance of these two important components in terms of behaviour modification. It would have been insightful to explore the long-term effect of such training on participants' behaviour.

Research shows that following training for police officers about people living with a mental health issue, their confidence levels increased (Bonfine, Ritter, and Munetz, 2014; Herrington and Pope, 2014; Krameddine *et al.*, 2013; Pinfold *et al.*, 2003), an essential component that could affect performance. Studies also show that following training, police officers' attitudes become more positive, the stigma towards mental illness is reduced (Compton *et al.*, 2008; Hansson and Markström, 2014; Pinfold *et al.*, 2003) and their behaviour is modified (Compton *et al.*, 2014; Compton *et al.*, 2008; Dupot and Cochran, 2000; Krameddine *et al.*, 2013; Prenzler, Porter and Alpert, 2013). However, these studies do not highlight which aspects of the training lead to such outcomes. Such data would provide useful information that could be utilised when designing awareness training for police officers. Regardless of the findings about the positive impact of training in the aforementioned studies, there are studies which do not corroborate such findings and no positive change was observed following training (Corrigan *et al.*, 2002; Geller, 2008).

Police awareness training about intellectual disability has also been reported to be effective (Bailey, Barr, and Bunting, 2001). As it has been outlined, very little is known about the effectiveness of police training on autism. Only one study investigated this (Teagardin *et al.*, 2012). Using a training video, the USA-based study found that following training, the participating law enforcement officers in the training group performed significantly better than control group at post-test. Similar to the studies about training in the mental health area, this study found that following training, police officers were more confident to identify and interact with autistic people. Overall, studies about the effectiveness of awareness raising for police confirm the importance of training. However, research is scarce in terms of the police officers' experience about training and what aspects of it they found most effective and motivating. Thus, more research is required in this area to inform training providers about those factors which are most likely to attract police officers to participate in training and to apply what they would have learned in their daily practice.

Table 4. Studies on autism training involving police officers

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
21	Christiansen, Minich and Clark (2021)/USA	To assess police officers' experiences related to autistic people. Prior experience, comfort, knowledge and ability to identify autistic people were assessed	Survey	51 police officers	53% reported that they received previous autism training 34% reported a personal experience with autism 57% recognised lack of knowledge on autism Those who received previous training or who had a personal experience reported higher comfort and knowledge
22	Gardner, Campbell and Wesdal (2019)/USA	To assess Law Enforcement officers' (LEOs) knowledge about autism, their prior training about this topic and their interactions with autistic people	Survey	72 LEOs	The majority (72%) reported that they did not receive any training on autism Although the officers reported that prior training gave them better preparation to deal with autistic people, this training did not make any difference in their knowledge Results suggested more formalised training for LEOs
23	Crane et al. (2016)/UK	To gather the experience of police officers regarding dealing with autistic people including how equipped they consider themselves and their training needs	Online surveys with police officers, autistic adults and parents of autistic individuals	394 police officers 31 autistic adults 49 parents	37% reported that they have received training on autism and over a quarter were not satisfied Lack of training and desire for more were reported by police

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
					Discrepancy: police sample was satisfied with how they worked with autistic people BUT autism community sample was dissatisfied
24	Eadens et al. (2016)/USA	To examine police officers' perceptions about people with intellectual disabilities	Survey (using a modified Social Distance Questionnaire)	188 police officers	Police had very little or no training about disabilities The majority are willing to interact with people with intellectual disability
25	Krameddine et al. (2013)/Canada	To present a new training for police to enhance their interactions with people with mental health issues	1-day mental health training was provided to police officers Pre- and post- training tests	663 police officers participated in the training and 312 completed baseline assessments and 372 completed assessments 6-months post-training.	6 months after the training results show an improvement in police's behaviour
26	Israel et al. (2013)/USA	To evaluate the outcome of a 5-hour training session designed to help police officers understand better the issues regarding LGBTQ community.	5-hour training session Pre- and post- tests were used to evaluate participants' knowledge of the topic and their ability to respond to LGBTQ individuals	120 police officers participated in the training and 81 completed pre-and post-test to evaluate	Participants' feedback showed that they regarded training as highly relevant for their job duties Participants' confidence in supporting LGBTQ individuals increased as their knowledge of LGBTQ issues. However, this study did not identify which aspects of training contributed to the outcome

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
27	Teagardin et al. (2012)/USA	To evaluate the effectiveness of a method of law enforcement training on autistic people	Training was provided through a 13 mins DVD about autism - how to recognise and respond to autistic people Pre- and post- test	82 law enforcement officers (42 training group & 40 to control group)	Participants in the training group performed considerably better than controls at post-test. After training the participants' level of confidence in identifying and interacting with autistic individuals has increased.
28	Chown (2010)/UK	To assess autism awareness and understanding in police officers	Questionnaire	120 police officers responded	Police officers seem to be unable to deal appropriately with autistic people Police tend to overrate their ability No respondents had received training on autism
29	Combrinck and Wakefield (2010)/South Africa	To explore why current training programmes appear to be ineffective in ensuring police compliance with the duties set out in the Domestic Violence Act (DVA)	Interviews with South African Police Service members and station commissioners at 20 police stations Semi-structured focus group discussions with representatives from the national and provincial offices of the Independent Complaints Directorate and the Western Cape Department of Community Safety	75 police officer (56 men and 19 women) who deal with domestic violence cases either at the Community Service Centre (CSC) or while conducting vehicle patrols 20 station commissioners/their representatives	Interviews showed that the majority of the research participants (members dealing with domestic violence complaints) had a basic awareness of the DVA and the National Instruction. However, when it came to the practical application of knowledge in a problem-solving scenario, the majority of interviewees experienced difficulties

Study	Authors (date)/Country	Study aims	Methods	Sample	Key findings
30	Wells and Schfer (2006)/USA	To explore police officers perceptions of their contact with people with mental health problems and to assess the impact of a new training programme	One-week, 40-hour Crises Intervention Team training Pre- and post-training survey	126 police officers	Police training on responding to people with mental health issues is not adequate. New training showed promising results

2.12. An overview of the sample and methodologies used in the studies reviewed

In order to acquire an overview of the sample size and research methods used in past studies, the most pertinent studies to the topic of this thesis were included in Tables 2, 3 and 4. Studies were included if they explored the views of paediatricians, mainstream teaching staff or police officers in terms of areas surrounding the topic of awareness-raising training. Overall, the aim of the majority of the included studies (6, 7, 12, 13, 17-20, 26, 27) in the three different professions, was to analyse the effectiveness of an awareness training programme on the professionals' knowledge and practice. Awareness-raising in these studies was conducted about various diversity groups including autism, attention deficit and hyperactivity disorder (ADHD), hearing impairment, LGBTQ, mental health and ID. Others studies explored the level of autism knowledge among paediatricians (1-5, 8, 9) or police (22, 28). Six studies (21-24, 28, 30) gathered the experiences and perceptions of police when dealing with autistic people, mental health or ID, while another study (15) looked at the challenges teachers experience to include autistic students in mainstream. Very few studies (e.g. Heiden and Harpel, 2013; Israel *et al.*, 2013; Ravet, 2011) gathered the professionals' overall experience of training for example, in terms of what they found useful. For instance, Syed and Hussein (2010) found that a 5-day training programme increased the teachers' knowledge about ADHD, which was maintained six months after. However, this study did not gather the teachers' feedback about the form of training, delivery, length, and whether they would change anything.

Although the objectives of the included studies were dissimilar to the aims of this thesis, their findings confirmed the importance of autism training and drew attention to those areas which necessitate more research. For example, studies on what motivates or hinders professionals' participation in training and what forms of training they prefer and learn most from is very scarce. Moreover, there is lack of research on the level of importance professionals attribute to autism training and what they find most challenging to address the needs of autistic people during their daily practice.

2.12.1. Participants and sample size in the studies reviewed

As it has been previously outlined, participants of the studies included in Tables 2, 3 and 4 were professionals within the paediatric, mainstream teaching or police professions. The majority of the studies about paediatricians did not include paediatricians only but they included other medical professionals within the paediatric field namely, paediatric nurses and a paediatric neurologist (1-4, 7, 8). Only 4 studies included paediatricians only (5, 6, 9, 10). Conversely, the majority of police studies (21, 22, 24, 26, 27, 28, 30) included police officers only, while the participants of another study (29) consisted of both police officers and station commissioners. Only one study (23) gathered the views of autistic adults and their parents in addition to that of police officers. The findings of Crane et al.'s (2016) study revealed an interesting discrepancy between the views of police officers who were satisfied with the work they carry out with autistic people, and those reported by the participating adults and parents who expressed disappointment. What this study has also identified is a number of needs that are currently not being addressed by police. Thus, this information could guide the content of an autism programme which is targeted for these professionals.

Unlike police studies, participants of studies within the teaching profession included more diversity in terms of their roles. More specifically, two studies (12, 16) included mainstream teachers only and one study (11) included student teachers. The participants of another three studies (14, 15, 19) were educators with autism experience, including TAs. In a Greece-based study (Syriopoulou-Delli *et al.*, 2012) participants included teachers from different educational sectors. While the majority were mainstream teachers, the study sample also comprised teachers from special schools, technical schools and special education vocational centres. Following training, the views of the different participants were contrasted and the findings revealed that teachers who had experience with autistic students held more correct perceptions and knowledge about autism than participants who had not worked in the autism field. Of the ten studies related to mainstream teachers, none focused solely on mainstream secondary school teachers. Thus, very little is known about the specific training needs for mainstream secondary school teachers. Although the participating sample in the study conducted by Syriopoulou-Delli et al. (2012) included teachers from both primary and secondary schools, the reported findings of this study did not distinguish between the views of these two groups of participants. The studies carried out by Busby et al. (2012) and Ravet (2011) included three different groups of participants each, who were not all employed in the education sector.

The sample size of the reviewed studies in Tables 2, 3 and 4 vary significantly with studies in the teaching area, overall having the smallest number of participants when compared to the other two professions. More specifically, as can be seen in Table 3, the sample size of the included studies varies between 3 and 228 participants. Conversely, the sample size of studies within the paediatric profession (Table 2) range

between 50 and 546, while only one study (10) (which gathered data through interviews) has a small sample of 5 participants. In terms of studies within the police profession, sample sizes span between 65 and 663. The observed difference in the sample size of the studies included in the above Tables is observed to be related to the method of data collection used. While the majority of the studies within the police and paediatric areas used pre- and post-tests in the form of questionnaires, studies related to the teaching profession used a wider variety of research tools in addition to surveys, such as interviews, nominal group techniques and action research, which required smaller number of participants. The research methods used in past studies will be reviewed further in the next section.

2.12.2. Research methods used in the studies reviewed

The methodologies used in the reviewed studies were analysed to gain insight into the most commonly used methodologies to investigate training on autism among paediatricians, teachers and police. Comments about this analysis are made throughout the previous sections. This section however, will give an overall picture. Generally, questionnaires were the most commonly used tools for assessing these professionals' knowledge on autism and to evaluate the effectiveness of a particular training programme. To do the latter, studies used pre- and post-assessment to evaluate the impact of the training method on their practice. However, only one study (see Table 4, no 25) made the follow-up test six months after the training rather than immediately after, which could give a better indication of the consistency of its impact.

Of the ten studies related to paediatricians, only one study (Table 2, no 10) used interviews as a data collection method. This gave more robust data because this study

gave more insight into the experiences of paediatricians when dealing with autistic children. Moreover, interviews made it possible for paediatricians to voice their views about their initial training and CPD courses, which they claimed to lack autism information relevant to their daily practice. As it has been previously outlined, research methods used by studies which explored awareness training for teachers were varied (see Table 3). Only two (13, 18) out of all the reviewed studies included in Tables 2, 3 and 4 used mixed methods. Ravet (2011) used open-ended questionnaires and semi-structured interviews to explore the effectiveness of an autism training programme and its impact on their practice. Moreover, Kearns et al. (2014) conducted pre- and post-surveys, interviews and focus groups to explore the impact of training and best practises to increase LGBTQ awareness in schools. These studies suggest that qualitative methods of data collection are more likely to add value than data gathered through quantitative methods, by gaining insight into the real-life experiences of participants.

2.13. Summary of the findings from the literature review

Literature surrounding the topic of autism training for professionals focused primarily on the importance of awareness-raising. Additionally, research confirms the effectiveness of training on the knowledge and everyday practice of professionals. However, studies reveal a need for further training on autism, to help professionals understand better and to respond more appropriately to the needs of autistic people. A thorough review of the literature suggests that paediatricians lack adequate knowledge about autism (Kharti *et al.*, 2011; Suchowierska and Walczak, 2013). Also, mainstream teachers claim that they find it difficult to include autistic students (House

of Commons Education and Skills Committee, 2006). Moreover, the majority of police officers do not receive formal training about autism (Chown, 2010). Studies show that autistic adults and parents of autistic children are dissatisfied with the way police officers deal with the autistic person (Crane *et al.*, 2016). A theme that intrigued me is that very often professionals do not feel the need to learn more about autism, but very little is known about what is underlying their reluctance to attend training on autism, which this study intends to investigate.

Previous international research has typically focused on the outcomes of autism training by measuring the knowledge gained. However, none of the studies looked at elements in the training that might help to instigate a positive change in the daily practice when actually meeting autistic people. Indeed, there are studies which show that participants have gained knowledge on autism following training (See Tables 2, 3 and 4) but there is lack of information on how this knowledge was translated into their workplace. Thus, more research is needed to identify those characteristics and elements of training that leave an impact on professionals, which has a continuing all-pervading influence on their daily practice. On the basis of this review, none of the studies were conducted in Malta and thus, very little is known about professionals' knowledge on autism and their willingness to attend training on autism. Therefore, there is a huge need to conduct research on this subject to discover the views of Maltese professionals on autism training. This would shed more light on the Maltese context of what would make professionals more motivated to participate in autism training, and what might be the barriers to participate in such training.

The information-seeking theory (Krikelas, 1983; 1993) puts forward that to participate in training, one needs to perceive a need, and be motivated to participate. Moreover, Robinson (1998) proposes that to motivate learners to attend training, the learners' aspirations, desires and expected outcomes need to be considered to make training appealing for the target population and to motivate them to attend. Furthermore, Taylor (2003) emphasises the importance of designing training in accordance with the communication style of the target training participants. He explains that it would be unreasonable to presume that for instance, the communication style preferred by police, characterised by evidence, logic and tangible examples, is effective with another group of professionals. In spite of these important elements highlighted in the literature, studies on what motivates or hinders professionals' participation in training about autism is very lacking. Moreover, there is dearth of research on possible preferred forms of training and the perceived need of professionals to learn more about autism. Thus, this study intends to look into the aforementioned factors. Moreover, in-depth exploration of those prevailing elements of training in general that are considered to be effective and thus, transferable to the practical day-to-day experiences of professionals will provide useful foundations for the development of training in autism. More so, by collecting the views of professionals from three distinct disciplines, this study intends to shed light on the potential similarities and differences in those characteristics that are likely to make training more appealing and transferable to daily practice. This will inform practitioners working in the training sector on those elements that may be effective in general, and those which may be particular to a group of professionals.

A review of the methodologies used in past studies on autism training was essential to guide me on the most appropriate research methods to use for this thesis. The majority of the reviewed studies used questionnaires. Since the main aim of most of these studies was to measure the effectiveness of a training programme, such methods provided sufficient data to reveal differences between pre- and post- training autism knowledge. Online survey was considered to be an appropriate tool to gather the views of the three selected professions in terms of what motivates or hinders their participation in autism training and their preferred forms of training. However, it was observed that the few studies which used mixed methods resulted in more robust findings. Moreover, since I am interested in exploring the lived experiences of professionals when encountering autistic people in their daily practice, it was deemed appropriate to include a qualitative research method too. Consequently, following from previous studies, I decided to use mixed-methods. An online survey and in-depth interviews were deemed as the most appropriate research methods for this study.

2.14. The three main aims of this study are:

(i) What motivates paediatricians, mainstream secondary school teachers and police in Malta to attend training on autism?

(ii) What form of delivery do they most enjoy and learn from?

(iii) What deters paediatricians, mainstream secondary school teachers and police from undertaking autism training?

The next chapter will set out the sample and methods used to gather the data to address these research questions.

CHAPTER 3
RESEARCH DESIGN, METHODS AND SAMPLE

3.1. Introduction

The literature review in Chapter 2 has shown that professionals from different disciplines are often not adequately informed about autism. This is having a great impact on the support that autistic people receive from these professionals, on their families and on the professionals themselves. It is not clear how best to enhance their understanding. Therefore, this study aimed to gain the views of professionals from three different disciplines namely, paediatricians, mainstream secondary school teachers and police, about how they could be more motivated to engage in autism training, what are the training deliveries that they prefer, and what barriers are hindering their participation in such training.

Thomas (2017) argued that a successful research project is dependent on the integration of all the elements namely, the purpose, questions, approach and methods. He said that these have to be 'all knit together' (Thomas, 2017, p. 104). In line with Thomas's advice, this study ensured that all these were synchronised by ensuring that decisions included all the elements, and the research questions remained constantly at the core of every step.

This chapter will present the research design which highlights the plan for this research. It illustrates my thinking of all the possible routes that I could have taken to answer the research questions. An overview of the pros and cons of the different

methods considered is discussed. This is followed by an introduction to the chosen methods (i.e. questionnaire and interviews) and why I used them. This chapter will also discuss the ethical issues arising from this study and my positionality as a researcher.

3.2. Research design

Previous research conducted in the area of autism training amongst professionals focused primarily on their autism knowledge and how many received training on autism. The consistent outcome of these studies was that professionals lacked autism knowledge and more training was needed. Consequently, this study intended to provide more insight on what could be done to encourage more professionals to undertake autism training. This study provided the selected professionals with a medium through which they could talk about what motivated them to engage in autism training, what training delivery styles they enjoyed most and learned from, and what were the barriers for their participation. This study treated professionals as knowledgeable participants, keeping in mind that while autism is not at the centre of their profession, they do encounter autistic people in their work. Their contribution was aimed to help this study understand the context of their work and what were the circumstances that they usually meet autistic people.

The participants were given the opportunity to be involved in this research project from its outset. Prior to the data collection process, I had several discussions with the key person/s in every group. I had meetings with the Head of Paediatrics Department at the University of Malta, with all the Head teachers or Assistant Heads in every mainstream secondary State school and with the 10 police Superintendents

responsible for all the districts in Malta. These meetings helped me to understand the context of their work and to identify the best strategy to engage participants. Furthermore, the proposed questions for both the questionnaire and the semi-structured interviews were sent to professionals from each group (in the case of paediatricians the draft questions were sent to trainee paediatricians since the whole population of paediatricians was intended to be invited to participate in the survey) (Full details are given in section 3.7.3 Pilot participants). I asked them for feedback to ensure that the proposed questions were considered relevant to encourage professionals to talk about their motivators, preferred training deliveries and barriers to engage in autism training.

In this study, the lens was on the participants' experiences of encounters with autistic people in their everyday work, and their perspectives on engaging in training on autism were sought. In line with this methodological position, I pursued methods that would grant me the possibility to explore the participants' viewpoints on how they could learn more on autism. A mixed methods approach, using a survey and semi-structured interviews was deemed most suitable for data generation.

Mixed-methods refers to a research approach that combines both quantitative and qualitative data within the same study in order to answer its research questions (Bowers *et al.*, 2013; Creswell and Plano Clark, 2011). A number of academics emphasise that mixing methods when appropriate, that is, when the research questions call for both quantitative and qualitative data collection methods is something to be applauded (Blaikie and Priest, 2017; Robson and McCartan, 2016; Thomas, 2017). Using a mixed-methods design might have a number of benefits that enrich the

quality of the research. One of the main advantages of using such design is triangulation when the data generated by a particular method can be compared to what is gathered by another method/s. Corroboration of data would enhance the validity of the findings. Mixing methods would also allow for a complete and comprehensive picture of the phenomenon being studied than a standalone quantitative or qualitative study. Using more than one method could mean that the limitations of one method are counterbalanced by the strengths of the other. As a result, stronger inferences can be made. Additionally, the outcomes from one method could be followed up and elaborated on through another method to obtain a clearer understanding of the gathered findings. When quantitative data provides very thin data, qualitative data can then give a better picture of the matter being studied. Bryman (2006, p. 106) referred to this process as putting 'meat on the bones'.

In this study, the survey provided thin but important data about the attitudes of participants on training and autism. It was an efficient way of gathering important information on the amount of time they were willing to dedicate, what would motivate them to attend and barriers to their participation. On the other hand, the in-depth interviews provided more rich and detailed information of the everyday experiences of autism of these professionals. The interviews allowed for an elaboration of the data gathered through the survey and provided first-hand data from three different professions about the topic of autism training. In this sense, mixed methods enabled triangulation of quantitative (the survey) and qualitative (the interview) data which increased the depth and credibility of the findings. Moreover, the perspectives of professionals from three different fields allowed for corroboration of findings.

Nevertheless, there are a number of challenges that a researcher might face when using mixed-methods research. For example, the researcher has to be skilled in both qualitative and quantitative methods. Being more familiar with qualitative methods as a researcher, I had to undertake training on quantitative methods. Another challenge of this design is the successful integration of the findings generated from both the quantitative and qualitative methods during the analysis and interpretation phases. Analyses included a process of merging the results from both the survey and the interview to come up with a comprehensive understanding of the professionals' views about engaging in autism training. Although triangulation of data proved to be a more time-consuming exercise than having one method, it is believed to have added richness to the study making it more robust.

> …triangulation should produce knowledge on different levels, which means it goes beyond the knowledge made possible by one approach and thus contributes to promoting quality in research (Flick, 2020, p. 187).

3.3. Selecting the main methods

The selection process of the most appropriate methods for this study was initiated with a thorough exploration of different methods that could have been used to gather data on the questions that this study attempted to answer. This process included a closer look at the research methods that were previously used to study the topic of autism training for professionals (see section 2.12.2 in Chapter 2). This enhanced my understanding of what others had used and the outcome of such selection. Towards the end of the selection process, as Magruk (2015) emphasises, the researcher has to be convinced that the selected methods effectively lead to the collection of the right information. The impact of selecting inappropriate research methods is naturally on the

validity, reliability and usefulness of the data collected and hence, it affects the veracity of the findings.

3.3.1. Considering potential methods for this study

Throughout the process, I considered three methods that could have been used to obtain the required data. For the reasons given in this section, each of these methods were rejected. These were: (i) focus groups; (ii) interviewing the trainers and (iii) systematic literature review on training adults.

Focus groups with professionals

Focus groups were initially considered as a potential method to gather the views of the professionals in a relatively short period of time. Stewart and Shamdasani (2015) maintain that:

> The open response format of a focus group provides an opportunity to obtain large and rich amounts of data in the respondents' own words (Steward and Shamdasani, 2015, p. 45).

Similar to interviews, focus groups allow the researcher to explore in depth the study topic and obtain thorough information about the experiences and views of participants, while being less time-consuming. However, I was more interested in exploring the individual experiences of the different professionals and to look at any potential common or diverse views about what motivates or deters them from participating in autism training. As Stewart and Shamdasani (2015, p. 49) maintain that, '...the decision to use focus groups instead of individual interviews must recognise the potential for confounding of individual responses'.

Moreover, due to the participants' professional commitments, it was envisaged that it would be difficult to find a suitable slot where all the participants would be available.

Interview the trainers

I also considered conducting interviews with the trainers rather than the professionals themselves. This would have given a good insight of what could be done to motivate professionals to engage them in autism training and what they thought the current barriers for professionals could be. This would have been a good opportunity because trainers would have a great deal of experience and they could have shared effective initiatives that worked well with other topics or with certain professionals. However, this idea was rejected because I wanted to hear the voices of professionals themselves to understand the context of their work and how they perceived autism training in the light of their particular roles and responsibilities.

Systematic literature review on training adults

I also considered doing a systematic review of the existent literature on training adults. This would have provided a good insight about how adults learn, what are those elements that motivate them more to learn on a particular topic, and what barriers are currently hindering adults to learn. This would have given me more time to go into detail about motivation to engage in training and barriers that hinder adults' participation in training. This would also have given me the chance to learn more about the training deliveries that are most effective for adults. A prominent advantage of this method would have been that it is less time consuming to analyse the existing studies than to design questions for the instruments used, recruit participants and carry out the

interviews and their transcriptions. However, this method was discarded as well since I would have missed the opportunity to listen to the voices of participants, and thus, their actual experience of their encounters with autistic people and their perspectives on participating in autism training. Moreover, given that no literature on this topic is available from the Maltese perspective, it would not have been possible to do this.

3.3.2. Deciding on the most suitable methods for this study

Following the consideration of a number of methods that could have been used to answer the three research questions, two main research methods were deemed to be the most suitable. These were an online survey and interviews. The survey was regarded feasible as it is an efficient means to get general information from a large number of people. On the other hand, interviews allow for clarification and elaboration following the survey. Although interviews are very time consuming, these were deemed necessary to gain richer and more robust data.

As reviewed in Chapter 2, the majority of studies used questionnaires as their main research method (see Tables 2, 3, 4). The survey methodology was also frequently used in studies which aimed to explore the impact of a particular autism training programme on the participants' knowledge. This was done through pre- and post-tests. When the research objective was to explore the participants' perceptions on training, such as the needs and barriers, studies tended to use interviews.

As highlighted in Chapter 2, there is a lack of studies which explore the perceptions about training from the participants' point of view. One of the few studies which explored this, was by Austin (2013), which focused on the training needs of

paraprofessionals supporting autistic students in Virginia. To explore this, Austin (2013) used both surveys and interviews to gain insight into training practices, needs and barriers for these paraprofessionals. Similar to this study, Austin's (2013) study set out to gather information about training from the population of people for whom the training was targeted. The research methods used were effective in providing a number of recommendations for training content and form of delivery.

The use of mixed-methods was only observed in another two studies, which used questionnaires and semi-structured interviews (Table 3, No 18), and pre- and post-online surveys and follow-up interviews (Table 3, No 13). Similar to this study, the objective of these studies was not to investigate how knowledgeable professionals were on autism (which could have easily been done through a survey only) but rather to understand their everyday experiences and how this was affecting their willingness or reluctance to attend awareness training on autism. Upon reflecting on the different methods used by other researchers and the type of data gathered, a mixed-methods approach was considered the most suitable to answer the research questions of this study.

In the current study, an online survey was considered well-suited to capture the training culture amongst the three professional groups and to gather reasons underlying their decisions to attend or refrain from participating in autism training (see Appendix 2 for a copy of the survey). The survey also aimed to explore the retrospective experience of professionals' training attended throughout their career, to explore what knowledge and training methods they considered most relevant. Additionally, in-depth interviews were used to gain a better understanding of the professionals' experiences with autistic

people, their outlook to their learning needs about autism, and how these affected their willingness to actually attend autism training. It was envisaged that data obtained from the two methods would highlight relevant factors that need to be considered when developing autism programmes for the respected professionals.

3.4. Online surveys

Check and Schutt (2012, p. 160) define survey research as '…the collection of information from a sample of individuals through their responses to questions'. Survey research includes different forms of approaches such as telephone surveys and postal questionnaires. For the purpose of this study, online questionnaire was considered the most practical method due to its efficient way of collecting data for both the researcher and the participants.

Stopher (2012, p. 93) argues that 'failure to define the purpose is likely to lead to a survey that will fail to be useful'. Thus, to ensure the usefulness of the survey, in the initial stages of choosing the data collection tools, I identified those aspects of the study topic which I intended to explore through the survey. The online survey aimed to gather quantitative data about what motivates respondents to attend training sessions, what form of delivery they most enjoy and learn from, and what factors hinder them from attending. Moreover, the purpose of the survey was to reveal how popular awareness-raising courses are. The data from the survey was intended to help me understand the participants' perceptions and behaviour in relation to training, which reflected what the research questions sought to answer. Sue and Ritter (2012, p. 6) advised to '…make

sure that you can tie in every questionnaire item to one or more of the survey's objectives.'

3.4.1. Content of the questionnaire

The measurement tool of a survey are the questions through which the researcher finds out the participants' knowledge, opinions and views relating to the study topic. Thus, the content and construction of questions play a crucial role in obtaining the required data from respondents (Kelley *et al.*, 2003).

> The best survey questionnaires look professional and motivating, are easy to comprehend, are inviting not intimidating, make answering the questions a clear and simple process, and are accessible to everyone in the target population (Sue and Ritter, 2012, p. 76).

The main survey content dealt with awareness-raising courses in general rather than training on autism solely. The overall aim was to explore the training culture among these professionals. Furthermore, this technique was believed to appeal more to the potential participants. Given that these professionals meet autistic people occasionally during their course of work, the topic of awareness training in general was likely to be perceived more relevant to their work than autism only. Edwards et al. (2009) argue that having an interesting topic could increase the participation rate.

The first part of the survey included some demographic questions (1-4), to provide the context for the given responses. These questions could also demonstrate any existent differences that there might be in the particular studied population. For instance, gender could be linked to one's willingness or difficulty to undertake awareness

training, and the number of years working could have an impact on their motivation to learn more on autism.

Following the demographic questions, the survey included three questions (5-7) about training in general undertaken by participants in the past 3 years. These questions intended to capture the existent culture of training, that is, how keen they were to learn about various topics, including those that are not directly related to the main work that they carry out. These questions also aimed to find out the participants' actual practice in terms of training courses they undertook in the past 3 years. It was expected that these questions could indicate whether there is congruency between their beliefs and their practice.

The next two questions (8-9) dealt with their preferences for training methods and delivery. These questions intended to gather the professionals' opinions about what form of training delivery they most enjoy and learn from, and to elicit information about what methods could be most suitable for particular professionals. Moreover, they provided the opportunity to understand what these professionals think would be most appropriate for them. This information is very lacking in the existent literature, and the choice of training content and delivery method usually depends on what the trainer thinks is most suitable.

The last section of the survey included a number of questions (10-24) on autism awareness training. The aim of these questions was to explore whether the participants had attended training about autism in the past 3 years and if they did, what was their experience. For example, whether they found it useful for their everyday practice.

These questions also intended to shed light on those elements in training that motivate participants to attend, as well as those factors that deter them from attending autism training.

This questionnaire made use of contingency questions (called slip-logic questions). This means that respondents were directed to the questions depending on their previous answer. This way, participants were not forced to 'read and answer unnecessary questions'. Sue and Ritter (2012, p. 23) argue that: 'This is an important feature that will greatly contribute to the validity of the survey responses.'

3.4.2. Implementation strategy for the online survey

The online survey was completed using Qualtrics, an online survey software programme. Qualtrics is a tool that is entirely web-based and covers the whole process of building surveys, distributing them and analysing responses.

In the initial stages of the process, twenty-one meetings were held with a representative of these populations (1 Head of Paediatrics; 10 Head teachers of mainstream secondary schools and 10 police Superintendents responsible for the 10 districts). The purpose of these individual meetings was to explain the aims of the study, and what was expected from their participation. Moreover, the personal conversation with the key people representing the target audience served, '…as a basis for deciding on the survey type to employ (or if a survey is even appropriate)' (Sue and Ritter, 2012, p. 3).

The outcome of these meetings was that the survey was possibly the most suitable methodology to get a snapshot of their views. Since they all made regular use of their work email, and given that their jobs are very demanding, it was concluded that they would prefer to respond at their convenience. They all agreed to help me to distribute the survey link to the selected participants, and in the recruitment of participants for the interviews in the second phase of this study. This was a very time-consuming exercise but I strongly feel that it helped me to build a very good rapport with the majority of them. I also believe that it had an impact on the response rate. With regards to the paediatricians, the survey was sent to the whole population in Malta since this population is very small (66). However, for mainstream teachers and police officers, a random sample of 150 from each profession was selected. Thus, I asked the contact persons to provide me with the sampling frame, that is, the whole population from which the sample was to be drawn. In all cases I asked for names and personal information to be removed, and to include only a number and whether they were male or female. Thereafter, I worked the ratio of males and females and used the research randomiser website to take a random sample from every secondary state school and police district in Malta. The randomly selected numbers were sent to all the respective contact persons who sent the link to those people who corresponded to the numbers on their lists.

Thereafter, an email highlighting the aims of the study and a link directing participants to a dedicated website displaying the survey, was sent to all the 300 participants who were randomly selected from the mainstream secondary school teachers and police officers. The survey was sent by the key person in each of the three study groups. This procedure was suggested by The University of Birmingham ethics committee for the

police. However, I opted for this method for all the participants for data protection purposes. This survey was anonymous because I did not have access to the respondents' email addresses. It was envisaged that participation could be enhanced if the survey was received internally rather than from a complete stranger.

Potential participants were sent an information sheet about the study detailing what their participation entailed, which they could read before they gave their consent to take part (see Appendix 2). This step is considered very important because when such information is absent 'people are likely to fill the vacuum by making unwarranted assumptions' (Lynch, 2013, pp. 15-16). This is very relevant for Malta, because since the populations within these professionals are very small, they might be more apprehensive about being identified. Moreover, if the scope of the study is not clear, participants could for instance, interpret such a survey as an exercise to measure their personal competence or as a tool to make them attend more courses outside their working hours. The information sheet made it very clear that their anonymity will be assured throughout the survey. According to Crawford et al. (2001) this email invitation plays an important role in eliciting responses to an online survey. Thus, it is very important to be clear and concise as participants are likely to base their decision on whether to participate, on it.

When inviting professionals to participate, I kept in mind that this survey was not included in their work schedule, and thus potential participants needed to find time to take part in the survey. When presented with a survey, people's decision on whether to do it is highly influenced by their first impressions of the survey. Studies have shown that if the survey appears easy to complete, not too lengthy and does not involve too

much writing, it is more likely that people will participate (Edwards *et al.*, 2009; Harcombe *et al.*, 2011). In an attempt to increase the participation rate, I tried to include these elements. Indeed, respondents were given options of agree and disagree, yes and no, or using a Likert-style scale response.

Keeping in mind that the survey was not the only method to answer the research questions, I decided that the use of probes to explore the participants' reasoning behind their choice of a particular scale value of a closed question, was not necessary. This could be gathered more thoroughly through the in-depth interviews. The absence of such probes could have encouraged more respondents to complete the survey. To help the participants understand that the survey is not very long, an indication of an estimated time of 8 to 10 minutes to complete the survey was given. Also, potential participants were given a deadline of 10 days to complete it. If people do not include a task immediately in their things-to-do list, they tend to procrastinate and forget about it (Harcombe *et al.*, 2011). After seven days all the invited participants were sent a reminder by the respective key people. Research shows that reminders can help participants to complete electronic surveys (Duffett *et al.*, 2012; Sahlqvist *et al.*, 2011).

3.4.3. Strengths and limitations of online surveys

Before choosing online surveys, I considered the pros and cons of this method. Advantages included that online surveys can be conducted very quickly and efficiently, and the speed of delivery and response is very rapid. Additionally, they are usually very cheap to administer and do not present difficulty with regards to data cleaning and analysis. The fact that data could be gathered online was efficient for both the respondents and myself, as they could choose a convenient time for them to complete

it. Participants were also able to save and complete the survey at a later time, which offered more convenience. Sills and Song (2002, p. 28) argue that if the studied populations are ‘connected and technologically savvy’, the advantages suggest that it would be sensible to select the web as a delivery method. Moreover, since an online survey affords the participants’ anonymity, it was anticipated that this would result in a higher response rate and could facilitate their willingness to honestly share their experiences and opinions.

Another advantage of online surveys is the absence of interviewer bias. On the other hand, the fact that there is no face-to-face contact between the researcher and the participants and thus there is no rapport, could result in a reluctance to participate. Another disadvantage of this method is that there is usually a high number of non-respondents when compared to other mail methods (Crawford, Couper and Lamias, 2001). For instance, people may delete the online survey without opening it, out of fear that it is spam or has a virus. However, in this case the fact that the survey link was sent from their superior could have limited this disadvantage. Additionally, surveys often give very thin data. In this study however, this was addressed through the use of in-depth interviews with a sample of professionals from each discipline after the survey was completed.

Another potential difficulty with online surveys is when the page is slow to load and potential respondents might decide not to wait. Stopher (2012) maintains that the waiting tolerance for a survey respondent will be less than for other pages of a person’s interest. Moreover, one potential bias of using this data collection method is that professionals who are more confident using the computer and with better online access

are more likely to complete the survey. Moreover, research has shown that studies using the web are more appealing to younger populations (Schonlau *et al.*, 2009) which could therefore lead to sampling bias. However, given that all the participants of this study received their link on their work mail, which they used frequently, should have made it less likely to result in the same discrepancy.

The online survey used Likert scale in some of the questions. Likert scale is one of the most commonly used response scales in surveys (Chyung, Roberts, Swanson, *et al*., 2017). Robson and McCartan (2016) argue that Likert scale is very popular with people and apparently, this scale can look interesting to respondents, and people tend to enjoy completing it. It is also easy to construct, and are likely to produce reliable results (Johns, 2010). A wide range of disciplines have accepted Likert scale as an appropriate tool for investigating a number of social phenomena. Thomas (2017, p. 222) argued that Likert scale was originally invented to measure attitudes where 'respondents indicate their levels of agreement to statements provided by the researcher relating to that attitude, belief or characteristic'. For these reasons, I decided to use Likert scale in some of the online survey questions.

In spite of its advantages, Likert scale also brings with it a challenge - that some people tend to over-choose the middle option. Participants may avoid choosing extreme options. Due to this tendency, Likert scale is prone to the *central tendency bias* (Douven, 2017). This is often due to the *social desirability* phenomenon, whereby rather than answering honestly, respondents tend to opt for a *safe* answer which they believe would be viewed more positively by others (McLeod, 2008). To eliminate such challenge sometimes this option is removed. A disagreement still exists between

researchers whether the use of midpoints on Likert scale may have an effect on research reliability and validity. Generally, those in favour of including midpoint opinions argue that the midpoint can increase the reliability of measurement. For instance, Chyung, Roberts, Swanson et al. (2017, p. 3) state:

> You insert a midpoint on the Likert scale to allow respondents to express a neutral opinion between disagreement on one side and agreement on the other.

A number of studies have shown that the construct validity may not be impacted by the midpoints (Adelson and McCoach, 2010; Kulas, Stachowski and Haynes, 2008). However, some researchers propose that the exclusion of midpoints may compromise the validity (Johns, 2005) and be regarded as a 'forced-choice scale' (Chyung, Roberts, Swanson *et al.*, 2017, p. 3).

Tsang (2012) raised an epistemological concern about the use of midpoints on Likert scale. This relates to the difficulty for researchers to identify the exact meaning and measure of midpoint responses. Initially, midpoints on Likert scale were interpreted as neutral, that is, to neither agree nor disagree (Raaijmakers *et al*., 2000). This choice was considered necessary to avoid obliging respondents to opt for agree or disagree options. However, such choices could induce misleading conclusions, should the respondents have neutral opinions, and neither agree nor disagree with particular items. Moreover, some scholars observed that midpoints could carry many more meanings such as *undecided*, *don't know*, *neither agree nor disagree* and the *no* opinion (Raaijmakers *et al*., 2000). Therefore, this could lead the respondents to interpret midpoints in various ways that would be completely diverse to the intended

meaning of the researcher, which would affect the extent to which the Likert scale would be measuring what the researcher intended to measure (Kulas *et al*., 2008). Given these diverse views about the midpoints on Likert scale, I decided not to have a mid-point on most of the Likert survey questions.

3.5. In-depth interviews with individual professionals

To elaborate on the survey responses and to acquire more insight into the reasons behind what encourages professionals to attend autism training and the barriers that prevent them from attending, I conducted in-depth interviews with a sample of 10 professionals from each group. Weiss (1994, p. 1) argues that through interviews, '…we can learn what people perceived and how they interpreted their perceptions'.

In-depth interviews were chosen to understand professionals' experiences when dealing with autistic people. Semi-structured interviews were considered suitable to allow participants flexibility to focus on issues that are meaningful to them (Barbour, 2000) rather than inhibit their views through pre-conceived responses (Mascha and Boucher, 2006; Petalas *et al.*, 2009).

Qualitative data through in-depth interviews can help the researcher to understand the world from the participants' point of view (Kvale, 1996). Thus, it was decided that data could be best achieved through in-depth interviews, since this would allow me to listen to the participants' 'authentic voice' (Gubrium and Holestein, 2012, p. 31). This was believed to enable me to identify any existent issues in developing a training that is useful for professionals under study. This includes those possible characteristics that

make training more appealing to the professionals, and hence increase their probability to attend.

Moreover, interviews served as an opportunity for me to explore whether participants were able to use the information given through previous training, in their everyday practice. This was done by gathering practical examples on how the knowledge acquired through training was transferred and thus, highlighting potential changes that occurred as a result of training. Moreover, interviews were considered to be a good opportunity to allow professionals to talk about autism and make reference to their everyday practice. This method was believed to be a good exercise to analyse how knowledgeable they were on autism. The majority of the reviewed studies in Chapter 2 used questionnaires to see how knowledgeable various professionals were on autism (see Tables 2, 3, 4). This study however, wanted to focus more on the professionals' practice when encountering/supporting autistic people rather than simply their knowledge of autism.

3.5.1. Development of the interview questions

The questions were developed following a review of the literature and an analysis of survey results. The set of questions was divided into five main sections namely:

(a) Effectiveness of training about autism/other topics,

(b) Top autism training needs

(c) Professionals' daily practice,

(d) Training and delivery format,

(e) Training barriers (see Appendix 3 for the questions asked).

Johnson and Rowland (2012) emphasise the importance of starting with icebreakers to put interviewees at ease. At the beginning of the interview, I encouraged interviewees to talk about their work, as an icebreaker and as an attempt to establish rapport with the participants. Such techniques are considered very important because making an interviewee comfortable at the beginning of the interview will likely have an effect on the whole interview outcome, by evoking truthful and comprehensive responses (Leedy and Ormrod, 2005; Patton, 2002). The questions were constructed in a way to avoid yes or no responses. For instance, when asking about whether they felt the need for more training on autism, rather than asking 'Do you feel the need for more training on autism?' the questions were worded: 'What are those areas that you still feel the need to learn more about in terms of how to support autistic people?" or 'What were those instances that you felt confused about what you should do to help an autistic person? These questions are more likely to elicit information that helps the researcher understand and identify those areas in which these professionals need more understanding.

A semi-structured format was chosen to conduct the interviews, in which a set of questions were prepared to guide me throughout the interview. However, Mann, (2016, p. 123) argues that the scheduled questions 'are much less important than what emerges from the interview'. He strongly suggests that to obtain the best results from this method, the researcher needs to be able to go with the flow. Participants were free to answer open-ended questions and to include as much details as they wished, as long as it was related to the researched topic. As the interviewer, I used probes to obtain more information especially when the answer was vague. Probes focused on

emotions and feelings that I was observing. Berg (1989) argues that very frequently, more responses emerge as a result of these unscheduled prompts.

This method allowed me a degree of flexibility to deviate from the scheduled questions and to rephrase questions to elicit the relevant information or to clarify certain responses (Irvine, Drew and Sainsbury, 2013). These qualities of replicability and flexibility provide richer data. I chose this kind of method to generate a natural conversation as much as possible and to allow interviewees to talk about real cases and what actions they took in the mentioned circumstances to support autistic people. This was regarded to be a useful way to get to know about their knowledge on autism rather than ask them direct questions related to their information on autism such as, “What are the main characteristics of autism?” or “How common is autism?”. As mentioned in the Literature Review chapter, the majority of the studies carried out in the field of professionals’ knowledge on autism focused mainly on their information on autism rather than their level of knowledge on how to help autistic people. Thus, to address this gap, this study used in-depth interviews to focus on their daily practice, and through such information analyse whether participants were well-informed to deal with autistic people. Moreover, the questions aimed to elicit information about what elements in training could help them to understand autistic people more to be able to support them appropriately by addressing their real needs.

Active silence is good to help the interviewee continue and elaborate. However, when over-used, it might tense the interviewee especially if the participant is reserved and finding it difficult to open-up (Robson and McCartan, 2016). To ensure good quality data through the interviews, I was attentive to ask one question at a time and to avoid

long and complicated questions or technical language. Since I work solely in the field of autism, it was important not to assume that other professionals understood what I had in mind. It was acknowledged that their lived experience was totally different from mine. It was also ensured that the posed questions were not too broad in scope because as Mann (2016) warns, the outcome of such questions will usually be vague responses.

3.5.2. The interview setting

The physical setting where the interview takes place is important but as Moriarty (2011) states, very often this detail is overlooked and not reported. The physical environment has an impact on the data collected so it is very important to be comfortable and with minimal distractions (Brinkmann and Kvale, 2018). The original plan was that whenever possible, the interviews would take place at the interviewee's place of work. This was to make sure that participants were comfortable, and being in their work environment could make it easier for them to make reference to their everyday experiences. Additionally, interviewing participants at their place of work could possibly interfere less with their work schedule as it would save them travelling time, which could make it easier for them to participate.

However, due to the COVID-19 pandemic I had to change the technique of conducting face-to-face interviews to online by Skype, as will be discussed in the following section. Prior to proceeding with the online interviews, I looked into the work of others to familiarise with this concept (Bertrand and Bourdeau, 2010; Curasi, 2001; Duffy *et al.*, 2005; Hanna, 2012; Janghorban, Roudsari and Taghipour, 2014; Lo Iacono, Symonds and Brown, 2016; Salmons, 2009; 2014).

The interviewer has an impact on data generation. Mann (2016, p. 68) argues that: 'The interview, conducted by a different interviewer, would generate different data'. Although my status was considered as an outsider since I did not form part of any of the professionals involved, I had experienced a number of circumstances where autistic people in my care had negative encounters with these professionals. Aware of this situation, I remained cautious not to let these experiences interfere with the data collection process. Additionally, I was very careful to avoid projecting my experience into the participants' answers by asking leading questions that attempt to understand the participants' experience from my own experience.

3.5.3. Reasons for switching from face to face, in-person interviews to online interviews

As discussed in the above section, originally, the plan was to conduct face-to-face interviews with the participants. The research literature shows that this mode is considered the "gold standard" for conducting interviews with regards to validity and rigour (McCoyd and Kerson, 2006). However, as soon as I started the interviews in-person, the Covid-19 pandemic put an abrupt end to this plan due to social distancing mandates. I considered various videoconferencing platforms (such as Zoom, Webex, Skype, GoToMeeting) to conduct the interviews online. Skype was chosen because of its wider usage. There was also more available literature about qualitative research using Skype as many researchers opt for this tool (Carter, 2011; Deakin and Wakefield, 2014; Lo Iacono *et al.*, 2016; Sullivan, 2012;). Additionally, Skype is free and easy to use and nowadays many people are familiar with it. Indeed, research shows that lately more people have started using these videoconference technologies for their daily

work and interactions as a result of the Covid-19 pandemic (De', Pandey and Pal, 2020; Nguyen *et al.*, 2020). In fact, all the participants had a Skype account, except one, who was very willing to set it up for the interview.

3.5.4. Piloting the online interview

Before switching to online interviews, I did a pilot with two of my colleagues. Basically, their feedback highlighted the following points: (i) the importance of having a good quality internet connection; (ii) to find a good place which is free from interruptions and distractions from the surroundings; (iii) to allow more time to warm up the conversation before starting to record the interview; and (iv) the use of a headset. Both colleagues stated that the use of a headset would make the participants feel more at ease that no one else could hear what they are saying. Following such feedback, I took the following actions: (i) informed the participants beforehand that a good internet connection was required to avoid communication interference (ii) participants were advised to find a distraction-free place. With regards to points number (iii) and (iv) I took these into consideration, as will be explained in the following section.

3.5.5. Rethinking ethical issues

The majority of the main ethical issues of face-to-face interviews also apply to online interviewing. The participants were contacted via email and sent the interview information sheet and the consent form. Participants could email or call me directly for any clarifications. The majority of the participants accepted immediately and sent a scanned signed copy of the consent form. One participant asked whether she could be audio-recorded only. This request was respected and accepted.

Once the participants sent the consent form, a mutual date and time was arranged to call. Prior to the call, Skype IDs were exchanged. Another ethical consideration that was taken was that I set up a new Skype account specifically for conducting these interviews. This was later closed so the details of the participants would no longer be accessible to me.

Call recorder for Skype (v3.0-2) software was used to record the interviews. This software was not expensive and it was an effective method to record video and audio interviews. Participants were asked to give their consent to be recorded. All participants except one gave their consent to be video recorded. With regards to the participant who expressed a preference to be audio recorded, this tool had the function to audio record only. Although the participants had consented to the interviews being recorded, the recording did not start immediately as the call started. This allowed the participants and myself time to adjust and feel comfortable about the process. It also served as an ice-breaker. I used this time to talk about the study and make sure that the participants understood their voluntary participation and their right to ask questions.

3.5.6. Recording the interviews

It is almost impossible for the researcher to remember all the essential details in the interviews. Thus, all the interviews were recorded following the consent of every participant. I was aware that the interviewees might experience discomfort being recorded. Thus, this was discussed with every participant to ensure that they felt comfortable. Mann (2016) argues that this feeling usually fades away very quickly as the participants start answering the questions. Speer and Hutchby (2003, p. 334) state that recording devices are not '…automatically significant and imposing, nor do they

inevitably encourage only certain kinds of talk'. The recording of the interviews is also considered as a measure that contributes to the transparency of the research process.

During the interview, listening to what the participants are saying is very important to make them comfortable and to transmit the message that they are contributing to the study. Being aware that recording the interview could decrease this, I was conscious that the main aim of recording the interview was to help me remember the main points expressed by the participants. Mann (2016) emphasises that during an interview the main priority is to listen and if this is not present 'it will certainly affect the subsequent depth and details of their turns' (Mann, 2016, p. 117). Although during the interviews, I wanted to create a natural conversation as much as possible, I was very cautious not to share my views, something which is normally done in conversations.

3.5.7. Advantages and disadvantages of interviews

Interviews allow the researcher to acquire 'direct' accounts of the participants' experiences through a comprehensive social dialogue (Alshenqeeti, 2014). Given the nature of semi-structured interviews, the researcher has an instant access to the gathered data. More specifically, researchers can ask for clarification when a response is not understood, or probe for more details when they feel that more information is required. Also, interviews allow the researcher to rephrase the question if it is observed that the participant did not understand a particular question. These are all advantageous characteristics of interviews which distinguish this qualitative method from online survey. Moreover, through face-to-face interviews, communication is optimised because the researcher has access to both verbal and nonverbal communication. The latter gives very important information which could compliment or

contradict what is said verbally, something which is usually absent in other research methods. Also, the recording of the interview allows the researcher to refer several times to what the participants said, a quality which enriches the data analysis because it is impossible to remember all the information that the participants say during the interview.

On the other hand, interviews are very time-consuming for both the researcher and the participants, and very often they generate a lot of data which make the analysis more difficult. Roulston (2013) highlights that the physical presence of the interviewer might have an effect on the participants' responses. Given the interpersonal nature which characterises the interview, studies have shown that participants might feel pressured to respond in a manner that is considered socially desirable (Richman *et al.*, 1999; Yin, 2009). In this study, as a professional working specifically in the area of autism, I was aware that I could potentially have an impact on the other professionals' responses. For example, participants might show that they are more willing to learn about autism than they actually believe. Aware of this limitation, I tried to emphasise that the focus of this study was to gather as much suggestions as possible about what could be done to encourage more professionals to undertake training on autism.

3.6. Selection and recruitment of the three samples

This study used random sampling to recruit participants for both the online survey and the interviews. The idea was to give all the members in the population of interest 'an equal chance of being included in the sample' (Connaway and Powel, 2010, pp. 119 - 120). This was considered important especially in the case of the survey since it aimed

to give a snapshot of the studied populations' perspectives about awareness training in general and on autism in particular.

With regards to in-depth interviews, I initially opted for a convenience sample. A sample of professionals that are close to hand was thought to be adequate since the interview's main objective was to understand better the lived experience of their daily practice in relation to autistic people, and how their autism knowledge could be enhanced. However, since the sampling frame was known, in that the list of participants within the three populations of professionals had already been accessed for the survey, it was considered more sensible to use this to select a random sample for the interviews as well. This move was intended to make the gathered experiences more representative of the populations being studied. Using a convenience sample in this study could have meant selecting professionals in my circle who could potentially share a similar training culture to mine. Hence, this could have led to missing important issues about what motivates and deters professionals from attending autism training. Selecting a random sample for the interviews was believed to minimise this inherent bias of convenience sampling, of over-representing or under-representing a particular group.

Thomas (2017, p. 142) argues that 'a way of improving a sample's representativeness is to stratify'. Aware of the gender differences in the studied populations (i.e. there were more females in the teaching profession and more males were in the police), stratified random sampling was considered as the best option to obtain a sample that best represents the whole population. This was done by dividing the population into two sub-groups (known as strata) based on their sex (males or females) and then a random sampling within these groups was taken, based on the ratio. For example, if a school

had 75% of the teachers who were females and 25% were males, the random sample was selected accordingly to keep the proportions in the sample the same as those in the population.

3.6.1. Participants

The participants were professionals from three different disciplines: paediatricians, mainstream secondary school teachers, and police. The random sample for the online survey consisted of 366 participants (66 paediatricians, 150 teachers and 150 police) and 30 in-depth interviews (10 participants from each profession). One of the limitations of the interview sample size was that the outcomes could not be generalised to the whole population. Although conscious of this limitation, my main interest was more to understand the professionals' views about undertaking autism training rather than to extrapolate the findings for the whole population.

3.6.2. Inclusion/exclusion criteria for the participants

Enthusiastic with the huge need that exists locally, to provide relevant information to professionals, I originally planned to study professionals from a wider range of disciplines. However, as the research process intensified it was evident that this was not feasible because this would have been very time-consuming. Hence, it was decided to limit the number of professionals and focus on professionals from three specific disciplines, which could be considered as front-liners. The choice of the chosen disciplines was mainly underpinned by anecdotal accounts of autistic adults and the families I support. The selected groups are often referred to with disappointment during support sessions, for their lack of understanding of the needs

and support required by autistic people. These groups also represented three crucial periods in the life of autistic people, that is, early childhood, school age and adulthood.

Family paediatricians are often the first professionals who meet autistic children in the very initial stages. Thus, their knowledge is regarded important to identify autism as early as possible and guide parents on appropriate interventions. In Malta the number of paediatricians is rather small (around 66). Therefore, for the online survey all the members of this population were invited to participate.

This study also focused on the school life of autistic individuals. I opted for State schools only because the majority of autistic students attend these schools (NSO: Malta, 2010). My focus on mainstream secondary school teachers (which totals 1,717 teachers in Malta), was motivated by the scant attention that has been given to secondary school teachers both locally and internationally when compared to mainstream primary school teachers (Brooks, 2014). This study excluded special school teachers and LSEs because it is more likely these educators have more compulsory training on autism. Additionally, this research excluded all those teachers who graduated more than three decades ago. This exclusion criterion was based on the fact that inclusive education was introduced in Malta in the 1990s and thus, it is believed that awareness training on different conditions became more important and relevant for teachers in the last 30 years.

Police officers were selected since autism is an invisible condition and a number of research studies (e.g. Archer and Hurley, 2013) have shown that very often their behaviour tends to be easily misinterpreted, especially youths and adults who are

unsupervised in the community. The Police Force in Malta totals about 1,950 officers in different ranks. Originally, the plan was to select police from the Rapid Intervention Unit (RIU) which comprises some 163 officers. Given that the main task of the RIU is that of continuously patrolling the island, the police officers working in this section have the most contact with the public and thus, their likelihood of encountering individuals with autism is greater. However, following the feedback from the pilot study, I changed the section to district police who work more in the community (See Section 3.8.4).

3.6.3. Recruitment of the participants

To obtain a random sample of the groups of participants, the Maltese Paediatric Association, the Ministry for Education, and the Police Force were contacted. Thereafter, I held a meeting with a key person from each of the three bodies to explain the objectives of the study. Copies of the online survey and the information sheet that were to be sent to the selected participants were shared with the respective key persons. The three bodies had an up-to-date list of all the members of the studied population. For data protection purposes, a random sample of 150 potential participants from each group of professionals (mainstream secondary school teachers and police), were contacted via email by the respective key person. The email provided them with information about the study and the link to the online survey (see Appendix 2). The participants' consent to participate was requested before they were able to access the online survey.

With regards to in-depth interviews, another random sample of ten participants from each profession was drawn and they were asked to take part in the interview. Once again, the selected participants were contacted via email by the key person. They were

provided with an information sheet (see Appendix 4) to explain the objective of the study and what their participation would consist of. Those participants who were willing to participate were given a consent form. Following their written consent, the key person handed over the consent forms to me, and I contacted each participant to agree on a convenient time slot to carry out the interview.

3.7. Piloting the survey and the interview

Notwithstanding the preparation and effort to construct good questions, it is not possible to predict how participants will actually interpret them. There is no substitute for trying out the questions to get to know whether the questions work well in practice. Thus, it is important to identify problems ahead of time rather than in the middle of the data collection process. Thus, I piloted the questions of the online survey, and the guiding questions of the interviews.

I also made sure that the piloting participants were not involved in the construction of the questions and that they were not aware of the purpose of the research, since the main aim of this exercise was to check whether the questions were understood correctly and to ensure that they were serving their purpose (Mikuska, 2017). Moreover, the aim of the piloting was to check that the questions do not cause any confusion to the participants. It was acknowledged that sometimes questions that were very clear in my mind were regarded as very confusing by the participants. Thus, the piloting needs to identify possible lack of clarity which could also decrease the response rate. The most important part of the pretesting exercise is to understand the feedback received and amend and refine accordingly. I wanted to make sure that the

data elicited through these questions would answer the research questions of this study.

3.7.1. The main objectives of conducting a pilot study

Conducting a pilot study is considered as one of the most important stages in a research study (Hassan, Schattner and Mazza, 2006; Robson and McCartan, 2016). An interesting observation made by a number of academics (e.g. Thomas, 2017; Van Teijkngen and Hundley, 2002) is that researchers often assert that following a pilot study, modifications are made and a number of things are learnt prior to the implementation of the main study. However, precise details about these adjustments and what was learnt during the whole process are often left out. So, from the very early stages of this study, I made notes on the decisions made and why, and carried out a pilot study, taking detailed notes of what was learned.

Conducting a pilot study allows for testing the feasibility, reliability and validity of the proposed study (Thabane *et al.*, 2010). A pilot study gives the possibility of a 'trial run' or a 'dress rehearsal'. Its aim is to identify potential problems in the research design and possible deficiencies in the research instruments which need to be addressed before proceeding to a large-scale investigation. Failing to make the necessary adjustments and refinement to the research methodology could lead to obtaining inaccurate and faulty data in the main study.

3.7.2. Piloting the online survey

The draft version of the online survey was piloted to assess its feasibility and the clarity of the questions. Sue and Ritter (2012, p. 73) claimed that '…the only way to find out if your questions will work is to pre-test (pilot) your questionnaire'.

The purpose of this pilot study was to obtain direct feedback from participants on:

(i) the completion time of the survey and then to consider whether it is reasonable

(ii) the wording of the questions in terms of clarity

(iii) the flow of questions

(iv) the response options - whether they were adequate

3.7.3. Pilot participants

The online survey was sent to 23 participants: 11 mainstream secondary school teachers (7 females and 4 males), 6 trainee paediatricians (4 females and 2 male) and 6 police officers (4 males and 2 females). From these participants 19 completed the survey and sent feedback via email (see Table 5 for the feedback questions). I also spoke on the phone with some of the participants (2 from each profession) to obtain more information, particularly about the individual items of the survey. Two participants completed the survey but did not send feedback, while another two did not respond.

Table 5. Feedback questions about the online survey

1	How long did you take to complete this survey?
2	Was the information given about this study and the instructions for completing this survey clear to you?
3	Was the wording of each question easy to understand?
4	Were there any questions which confused you? If YES – which questions?
5	Which questions do you think should be deleted or changed? Why?
6	For questions with multiple response choices: Are there any other choices which you think should be included?
7	Did the flow of the questions encourage or discourage your desire to complete the survey?
8	Were there questions that you could not answer? If yes, which one/s?
9	Is there anything about autism training that was not covered in this survey?
10	Do you have any other suggestions or comments about this survey?

3.7.4. Procedure to recruit participants to the pilot study

The procedure used to recruit pilot participants was through three personal contacts, one from each group. They were asked to forward the survey to an agreed number of their colleagues. This technique worked well in terms of a good response rate. Receiving a survey from a colleague, rather than from an unknown researcher is likely to increase the response rate.

Given that the population of paediatricians in Malta is very small (66), I decided not to use this population for the pilot study, to be able to invite them to participate in the main study. So, I selected the pilot participants from an analogous population, (i.e. trainee

paediatricians). The head of the academic Department of Paediatrics at the University of Malta introduced me to 5 trainee paediatricians who were willing to help. (Another trainee paediatrician was later selected to complete the Maltese version of the online survey).

3.7.5. Feedback from the pilot respondents of the online survey

Pilot respondents were asked for feedback. This was collected through a number of questions (see Table 5). In retrospect, it would have been more useful to ask for feedback on individual items (perhaps through a rating system) rather than asking general questions about the survey. The technique used may have missed important information. To address this, I asked two pilot participants from each group to talk further about their feedback via telephone. All the invited six participants accepted and I obtained deeper insight (see Table 6 for the main modifications to the survey questions following the feedback from the pilot participants).

3.7.6. The length of the online survey

The average time taken to complete the survey was 10 minutes, ranging from 5 to 21 minutes. The majority of the pilot participants did not think that the survey took too long to complete but a number of participants commented that the information given about the study was rather long. The length of the information sheet could discourage participants from completing the survey. In fact, some experienced a dilemma on whether to take the survey, when they read this information. One participant thought the survey was rather long.

Following this feedback, the information sheet was shortened and a more informal style was adopted. The title of the study was put at the very beginning of the information sheet, following the feedback of two participants who felt it would be more helpful to know what the study was about as soon as they started reading. Another respondent suggested that it would be more motivating to mention that the study is being carried out in collaboration with Maltese organisations. This participant said:

> "For me since this research is done in Malta, mentioning a Maltese organisation in the beginning will help me to identify more with it".

Modifications to the information sheet were very important as this was the first piece of information that the participants were going to be reading. It was therefore very likely to influence their decision on whether to respond or not. Moreover, I went through all the questions and checked whether all were necessary. Question 16 (see Table 6) was deleted since the majority of the respondents did not answer it.

3.7.7. The survey flow

Olson (2010) argued that a seamless survey flow minimizes the burden on respondents and leads to higher-quality data. Pilot respondents said the flow encouraged them to continue responding until the end, and it made sense to them. Some respondents observed that as the first part dealt with training in general (which was easy to answer), this helped them to get involved in the survey. This is in line with Thomas's (2017, p. 224) advice of starting with something easy to 'whet their appetite to carry on'.

3.7.8. The response options provided

Literature highlights two specific characteristics that make a good list of response options: (i) mutually exclusive categories - answer choices do not overlap with one another and (ii) collectively exhaustive - all the available categories are provided (Minto, 2009). From the participants' feedback, there seemed to be no difficulties with the answer choices provided. Respondents did not mark "other" on a frequent basis and there was no answer that was repeatedly given in the 'other' option that deserved to be an option. Moreover, I included the "other" option in the gender question which was missing in the initial version. This option was included to represent individuals who do not identify as either male or female.

I allowed the potential respondents to choose more than one option for questions number 8 (Which training methods do you prefer?), 20 (Which of the following factors would motivate you to attend awareness-training on autism?), 21 (Which form of training in autism would motivate you most to attend?) and 23 (If you had to design autism training for your profession, which topics would you include?). This was done so that they could identify more than one factor. For example, regarding question 20, two respondents said there was more than one factor which motivated them to attend training on autism. Although this feedback was given particularly about question 20, it was generalised to other questions (8, 21 and 23) which could have created a similar situation for respondents.

3.7.9. Suggestions for possible additions to the survey

Some participants suggested that the survey should include questions to check participants' knowledge on autism, emphasising that professionals in their area are ill-informed about autism. However, the survey in this study was not intended to gain information on how knowledgeable these professionals were on autism. The aim of this survey was to explore the perspectives of these professionals about what could motivate them more to learn about autism, and what is currently hindering them to undertake autism training.

Table 6. Modifications to the questions in the light of the findings from the pilot study

Question 6	
Pilot question	If YES, approximately how many courses and briefly which topics were covered?
Revised question	If YES, what were the topics covered?
Reasons behind such change	This was a double-barrelled question which confused participants. Only one participant wrote the number of courses he had attended but he did not state the topics covered. The remaining participants wrote down the topics but did not include the number of courses they had attended.
Question 15	
Pilot question	Have you attended any awareness training about autism in the last 3 years?
Revised question	Have you attended any learning activity about autism (e.g. conference, course, talk) in the last 3 years?
Reasons behind such change	The term 'training' was interpreted by some participants as autism courses only. One trainee paediatrician remarked: "The training it asks about related to courses only. I had attended a conference where autism was a main topic (one of the ACAMH conferences), however I could not include it given that you specified it had to be a training course"

Question 16	
Pilot question	If tomorrow you had to choose an awareness-raising course on autism, which training course that you are aware of would you select? Why?
Revised question	This question was deleted without replacement
Reasons behind such change	This question was too hard to answer. Most of the participants did not answer this question. This question could have increased the respondents' burden which could lead to faulty data.
Question 19	
Pilot question	On a scale of 1 to 5, how keen would you be to attend further autism-awareness, if it was offered?
Revised question	How much time are you prepared to commit to autism training in the next two years? None 1 to 2 hours per year Half-day Full-day 5 days course per year
Reasons behind such change	Including specific response options would gather more concrete data of how much time they are willing to commit for autism training.
Question 22	
Pilot question	What might deter you from attending autism awareness courses? (Participants had to say whether they agree or not with the given statements)
Revised question	The statements remained the same but a ranking format was used
Reasons behind such change	The majority of the participants found this question rather confusing Ranking order was used to limit the cognitive burden on participants and to give a clearer indication of what professionals consider as the main barriers to attending training on autism.

3.8. Reflections on the feedback

3.8.1. The Maltese version of the questionnaire

In the pilot study, all the survey respondents chose the English version. Hence, this resulted in no feedback about the Maltese version. In response to this, I invited another three professionals (one from each group) and asked them specifically to complete the Maltese version. All three participants accepted and were very willing to provide feedback. This helped me to ensure that the questions in Maltese were clear. The changes done in the English version were also done to the Maltese version. However, there were two ambiguities which were particular to the Maltese version, and these were modified. For example, the first response option to question number 20, “Biex tiddiskuti l-isfidi speċifiċi li niffaċċja meta nitratta l-awtiżmu fil-prattika ta’ kuljum” [To discuss the specific challenges I face when dealing with autism in my daily practice] was modified to “Biex nitgħallem aktar dwar kif nista’ ngħin persuni bl-awtiżmu li niltaqa’ magħom fix-xogħol tiegħi” [To learn how I can help people with autism that I come across in my work]. The second option was also modified from: “Għax għandi responsabbilta’ speċifika għall-awtiżmu” [If I had a specific responsibility for autism] to “Jekk ix-xogħol tiegħi jinkludi responsabbilta’ diretta ma’ persuni bl-awtiżmu” [If my work deals more directly with people with autism].

3.8.2. Reminders for non-respondents to complete the survey

Research shows that reminders can help participants to remember to complete electronic surveys (Duffett *et al.*, 2012; Sahlqvist *et al.*, 2011). On the other hand, it is argued that too much pressure can lead to inaccurate or faulty data because

participants might answer just for the sake of answering, and thus, their answers would not reflect their true beliefs (Ismail *et al.*, 2017). In this pilot, eight participants responded within 7 days. All non-respondents were reminded to complete the survey. Subsequently, 11 participants responded within a few days following the reminder. This pilot helped me to reflect on the impact a reminder might have on the response rate.

3.8.3. Data analysis software

The preliminary data that was obtained through the pilot study helped me to evaluate the data-analysis method. My first attempt was to evaluate analysing the data through Qualtrics. However, it turned out that a deeper understanding of the data could be better analysed through Statistical Package for the Social Sciences (SPSS). Thus, it was decided that it would be more sensible to export the data to IBM SPSS software in the main study. Pilot data was exported to SPSS, which gave me the chance to practise prior to the main study. This exercise indicated that I required more skills to use SPSS. So, I undertook a training course to gain more knowledge on working with SPSS.

3.8.4. A major change regarding the recruitment of police officers

A common theme that emerged from the feedback from 6 police officers, was their concern about the section that I intended to select participants from (i.e. the Rapid Intervention Unit, RIU). Initially, I had chosen this section because part of their work is patrolling the island and thus, their likelihood of meeting autistic people was considered greater. However, all participants argued that the police officers based in different local

police stations across Malta work directly in the community, and thus, have a greater chance of dealing with autistic people.

I also learnt that the RIU section deals with intensive cases where a rapid action is required, and when district police do not have enough resources to deal with a particular case. All participants stressed that autism training is more appropriate for police officers who work in police stations rather than police of the RIU. Therefore, I decided that it would be more sensible to select participants from all the police districts in Malta. The latter is divided into 10 districts and in the main study a random sample of 15 police officers from each district was selected.

3.9. Piloting the interview schedule

The aim of the pilot interviews was to test the appropriateness of the questions, question wording, question order, question difficulty and also to help me obtain experience. The piloting method used for the interviews was debrief (retrospective), respondents were asked to give feedback as soon as they finished the interview. The feedback was gathered through a feedback template (a set of debrief questions) to complete after the interview. Table 7 provides a list of the questions that pilot participants were asked:

Table 7. Feedback questions about the interview

1	How did you find the interviewing experience?
2	Was the environment comfortable for you?
3	Were the questions clear? Can you indicate any questions that were not very clear? What did you find difficult to understand?
4	Did you find any repetitions in the questions asked?
5	Which questions do you think should be deleted or changed? Why?
6	Was there a flow in the order of how the questions were asked?
7	How did you find the length of the interview? Was it too long for you?
8	Would you do any amendments in the interview process?
9	Are there any more questions that you would have included to explore this topic?

3.9.1. Procedure adopted to recruit pilot participants for the interviews and changes in this for the main study

For the recruitment of pilot participants, I planned to have 1 participant from each group. So I asked 3 key people (1 Head of Paediatrics, 1 head teacher and 1 Police Superintendent) to ask one or two professionals in their group to participate in a pilot project to test the interview schedule of questions. These pilot participants were not included in the main study. The Pilot study was conducted in real settings and using the same procedure that was to be used for the major study. Turner (2010) and Hennink, Hutter and Bailey (2011, p. 1076) as cited in Majid et al., 2017 suggest that the participants in the pilot, '…should share a similar criteria as possible to the group of participants for the major study'.

The original plan was to ask a key person from each group to identify who was interested to take part in the pilot study. However, following the first attempt, it was noticed that through this procedure, only those who had a special interest in the subject, mostly parents of autistic children came forward to do the interview. Thus, I realised that this was unlikely to provide me with the required feedback. To avoid this situation, I thought it would be better to take a random sample from the list of participants who were chosen to respond to the survey and invite them to participate in this interview. These participants were informed that this was a pilot study and that their feedback would not be used in the final reporting. The random sample was taken using the same procedure adopted in the survey, that is, using the research randomizer website https://www.randomizer.org.

3.9.2. Changes made to the interview schedule

One of the difficulties that I experienced during the interviews was taking down the notes. I found it difficult to listen carefully to what the interviewee was saying and to refer to the next questions at the same time. So, I felt that this could be facilitated if the schedule was clearer. I also made the theme of the questions very clear so that I could go to the section easily, if the participant made a reference to another area.

I noticed that I took extensive notes during the interview which was a bit distracting, and could have interrupted the natural flow of the conversation at some points. Indeed, one of the pilot participant's feedback about this was:

> To be honest, although in the beginning I told you that I don't mind that you take notes during the interview…when you asked me…but it did affect my

> concentration because you know…sometimes it feels like you are in an exam and while I was talking I was tempted to check what you were writing.

So, for the main study I controlled my tendency to take a lot of notes and I practised more active listening.

3.9.3. Changes made in the wording of some questions

Participants were able to answer the majority of the questions without any difficulties. A number of changes were done to some questions (see Table 8 for the main adjustments). For instance, following my observation of question 7 (Have you attended any awareness training about autism in the last 5 years?) I removed “in the last 5 years” because two participants told me that they had attended courses on autism but it was more than 5 years ago. Indeed, they admitted that following their engagement in autism training more than 5 years ago, they decided to stop attending training related to autism. When asked what was the reason behind such action, they both responded that they considered this training as a “waste of time”. They insisted that such training did not help them to learn how to support autistic people in their work. Following this feedback, I added a question in an attempt to try to obtain information why they had stopped attending training on autism and what could be done to encourage professionals who might have the same negative experience to start participating in autism training again.

3.9.4. An added supplementary question

Another supplementary question was included to question number 4 (Can you describe a situation where you felt ill-equipped to help an autistic person in your work? What

was most challenging or difficult and why?). I noticed that the three pilot participants recounted very realistic situations that they had found very challenging to deal with autistic people. For instance, the teacher said that once an autistic student slapped him on his face in front of the whole class because he changed the order of the lesson. Thus, I included a question to help participants elaborate on what were their actions, following such challenging encounters with autistic people. This was meant to provide me with more insight of what were the participants' perspectives of their training needs on autism and whether such situations motivated them more to engage in autism training.

Table 8. Main modifications to the questions in the interview schedule

Question 4	
Pilot question	Can you describe a situation where you felt ill-equipped to help an autistic person in your work? (What was most challenging or difficult and why?)
Revised question	I added 'What action did you take after this episode?'
Reasons behind such change	I added this question because when I heard the audio recording, I noticed that there was important information that could have been missing. Indeed, I felt that it would have been interesting to know what did they do after this experience, because they all mentioned very emotional experiences that had happened to them but I did not get any information of how they have addressed the challenging situation.
Question 7	
Pilot question	Have you attended any awareness training about autism in the last 5 years?
Revised question	Have you attended any short courses or awareness training on autism in your career? If **YES** – how long ago did you do this training? Which topics were covered? To what extent did this help you to support autistic people better in your work? Do you remember what motivated you to go to this training? What would you have done differently if you were the training provider? If **NO** – What is holding you back from undertaking autism training? In those situations where it comes out that the participant undertook one or more courses on autism in the past but stopped attending these courses: Why did you stop going to courses on autism in the past 5 years? How could we encourage professionals like yourself to keep on going to training?

3.10. My skills as an interviewer

The pilot interviews gave me the opportunity to sharpen my skills as an interviewer. The three pilot interviews served as a good rehearsal to gain my confidence of asking questions to people that I had never met before, and thus helped me to become more at ease in the main study. During the pilot interviews, I confirmed the importance of building a good rapport with the participants so that they will feel comfortable to share their perspectives and experiences with me. Indeed, Brinkmann and Kvale, (2018) remarked that:

> A good contact is established by attentive listening, with the interviewer showing interest, understanding and respect for what the subjects says, and with an interviewer at ease and clear about what he or she wants to know (Brinkmann and Kvale, 2018, p. 154).

Listening to audio recordings helped me more to improve my skills as an interviewer because I could identify the impact of my interventions on the answers of the participants. During these recordings I also noticed that there were instances where the interviewee went off topic. Hence, I thought that it would beneficial to take note of these sections in the research diary which would then help me to skip these sections during transcription.

Following the interviewees' feedback, one particular technique that all the three pilot participants found very useful was that the interview was rounded off by mentioning some of the main points that they had learned from the interview. This served as a good exercise to make sure that I understood them correctly and interviewees felt good that their participation was a valid contribution.

One of the challenges was to prevent the interview from containing small talk. There were instances where I found myself in a dilemma how to stop them from sharing experiences that were not directly related to what this study wanted to obtain. Following the piloting, I prepared myself more on how to direct participants to share such experiences after the interview, so that they remain focused on the topic. I was very aware that this had to be done in a very sensitive way, without conveying the message that I was only interested in them answering my questions. Indeed, one pilot participant commented about this in his feedback:

> When I take part in any interviews like this, I feel very frustrated when I realise that I am like being 'used' by the researcher just by taking information from me…nothing else, when I feel this I stop being cooperative, so my advice to you is to listen, to build a normal conversation with your participants and it's ok to let them say something that might not be important for you but it would be for them.

3.11. Data Analysis

Erickson (1986) describes analysis as a process where collected documentary materials such as audio recording transform into data. The documentary materials in this study were the spreadsheet of the online survey, and the audio/video-recording of the interviews. Hence, the focus of the data analysis process was on these two sources.

Initial analysis of the survey responses took place in Qualtrics. The latter tool enables researchers to view the survey responses as they come in. The spreadsheet, developed by simply clicking on the 'analyse' button, provided a wealth of information about respondents' attitudes towards attending awareness-raising sessions in general

and on autism in particular, and their preferred style and method of delivery. Descriptive statistics were used to analyse the data from the survey, to summarise the gathered data and illustrate what the data shows. For instance, it showed the most frequent motivator and barrier to attend awareness training on autism that participants mentioned. Nevertheless, it was felt that this was not sufficient data, and therefore I decided to use the IBM SPSS software. It is a versatile and very powerful statistical software platform, designed to deal with a wide range of statistical procedures. SPSS provides a robust set of features that allow researchers to obtain a good insight from the gathered data (Field, 2018). Underpinning my decision to opt for SPSS was mainly its emphasis on analysing statistical data, making it particularly a powerful tool for deciphering survey data.

3.11.1. Transcriptions of the interviews

Literature in qualitative research emphasises that the practice of transcribing the spoken conversation of an interview is essential to secure the validity of the study and enhance transparency of the data analysis process (Brinkmann and Kvale, 2018; Davidson, 2009; Nikander, 2008). The repeated careful listening that transcriptions require is described by Bailey (2008, p. 129) as ‘an important step in data analysis’ because it allows the researcher to understand the participants’ thinking better. This change of medium brings with it issues of accuracy, fidelity and interpretations that need to be considered and not overlooked (Gibbs, 2018).

Prior to the transcription process, I ensured that I was knowledgeable about the impact of my decisions on the quality of the data analysis. The following section will give a

brief overview of the decisions taken and their potential impact on the quality of the transcripts.

3.11.2. How the transcriptions were completed

Initially, a transcription software programme was considered to increase the efficiency of the process. However, since the majority of the interviews were conducted in Maltese and none of the available software recognises the Maltese language, transcripts were done manually, adopting the traditional listen-and-type method. A study by Johnson (2011) found that the listen-and type method was more efficient and accurate when compared to voice recognition software.

Since transcription is considered as an interpretative process (Kvale and Brinkmann, 2008), I aimed to transcribe the interviews myself to get closer to the data, as supported by Matheson (2007) and Park and Zeanah (2005). However, since there were thirty interviews, it was deemed necessary to get help from an assistant. The latter was an experienced transcriptionist, who was one of my colleagues at the MAC, and so close collaboration and discussion on this was possible. The transcriber was given a set of written instructions to follow, such as the construction of sentence structure, and the inclusion/exclusion of punctuation to ensure consistency in style between the assistant and myself. Notes were taken in the few instances that interviewees went off topic, so these could be left out. I transcribed these interviews myself to ensure that the natural format of the conversation and its meaning were maintained as much as possible.

The assistant's input was also beneficial for accuracy purposes, as all the transcripts were swapped and checked against the recording to eliminate mistakes as much as

possible. This process allowed for identification of any discrepancies that could alter the meaning of what was said, such as omitting words and including words other than those said. The use of commas and inserting periods could also convey a different meaning. Therefore, having a different person listen to the recording was a good exercise to identify these.

3.11.3. Confidentiality and anonymity in transcription

The help of an assistant in the transcription process presented a challenge to confidentiality. So, prior to working on the transcripts, the transcriber was given a written agreement (see Appendix 5) to ensure the assistants' commitment to fully protect the participants' identity and what they said. Additionally, an anonymised copy was immediately produced after transcription. All participants' names were changed. Teachers were anonymised as TM (Teacher Male) or TF (Teacher Female), Paediatricians as PdM/F and Police PM/F, and numbered from one to ten. Other potentially identifying information was also removed from the transcripts. My aim was, as expressed by Saunders, Kitzinger and Kitzinger (2015, p. 617) of 'maximising protection of participants' identities and maintaining the value and integrity of the data'.

3.11.4. Deciding what to transcribe

A number of researchers have described transcription as a form of decision-making (Deschambault, 2012; Hammersley, 2010; Hepburn and Bolden, 2017) because it involves judgements about how much detail to include. Collins, Leonard-Clark and O'Mahoney, (2019, p. 663) argue that transcription '…is not neutral'. In this study, all

decisions on what to include in the transcripts and what style transcripts should adopt, were taken in accordance to the questions that this study sought to answer.

The transcripts were transcribed verbatim. This was considered appropriate as it avoids the bias of transcribing only those sections the researcher considers relevant or interesting. The main focus was on what was said rather than how it was said. Details of prosody, gestures, intonation, sighing, utterances, and filler words such as ‘um’, ‘uh’, ‘mmh’ were omitted. The main objective of this study was to get factual information on what could motivate participants to attend autism training and what were the current barriers to undertake training. So, meaning analysis was considered more appropriate than conversational analysis.

Social talk at the beginning and end of an interview was not included as the purpose of this was to serve as an icebreaker. However, for some interviews important points about the topic were raised during this social talk. In such cases these parts were noted in the research diary following the interview, and the social talk was also included.

3.11.5. Sharing the transcripts with participants for approval

The practice of sharing transcripts with participants is still not widely adopted by qualitative researchers, although it is increasingly being used (Mero-Jaffe, 2011). However, there is limited guidance on the techniques used to verify the transcripts, prior to the coding and analysis process. This checking phase was considered, but as all the participants had taken part in the online survey as well as the interview, I felt it would be too demanding to ask them to go through about 16 pages of transcript. Furthermore, a number of studies have shown that although interviewees do offer to

check these when asked and to send any corrections, some may never respond (Forbat and Henderson 2005; Mero-Jaffe, 2011). In addition, a number of research studies have shown that this process added very little to the precision of the transcripts (Hagens, Dobrow and Chafe, 2009; Mero-Jaffe, 2011). The swapping of transcripts with the research assistant was considered as an alternative method to improve the accuracy of the transcriptions (see Appendix 6 for a sample of one transcript from each group).

3.12. Analytical strategy

The analysis of this study attempted to acquire a close understanding of what the experience to support autistic individuals meant for the professionals, primarily individually and then collectively. Specifically, what is it like that they have to engage in autism training given the context of their work and other commitments, and what is their experience of training deliveries they prefer most. Unlike the majority of previous studies that were more interested to know the professionals' knowledge on autism, this study wanted to listen to the individual voices and experiences of these professionals, in relation to undertaking autism training. The analysis was influenced by my interest to understand, the participants' experiences from their own perspective.

3.12.1. Analysing interview data using Thematic Analysis

The approach used for analysing qualitative data was Thematic Analysis (TA). TA is a process to find recurrent meanings throughout the gathered data, which is believed to be significant to the explanation of a phenomena (Vaismoradi, Turunen and Bondas, 2013). This study aimed to understand what could motivate professionals to engage in

autism training, what training delivery would be most suitable for them, and what were the current barriers that were blocking their participation in training. Thus, I thought that TA would allow the identification of specific patterns in the participants' viewpoints and sought out for themes that capture some significant information that answer the research questions (Braun and Clarke, 2006). Since I was interested in the participants' viewpoints, TA was regarded as the most suitable approach due to its theoretically flexible nature, rather than 'a theoretically informed and constrained methodology' (Braun and Clarke, 2019, p. 583).

The data analysis process adopted in this study followed Braun and Clarke's (2006) six phases of TA (p. 87):

(i) Familiarise yourself with the data

(ii) Generate initial codes

(iii) Search for themes

(iv) Review themes

(v) Define and name themes, and

(vi) Produce a report

The first step started with the interview transcriptions (see the above section 3.11.1), where manual transcriptions allowed me to become familiar with what had been said. Those interviews transcribed by the transcriptionist were still checked against the recording by me. This process allowed me to '…become intimately familiar with every word that has been exchanged between you and the participants' (Saldaña, 2011, p. 44).

Following the transcription process, I read through the entire data of one group of professionals at a time (i.e. 10 interview transcripts). Such familiarity of the data helped me to get an idea of that particular professional group's viewpoints and I started identifying possible patterns in what they had said. I was vigilant about my own personal perspectives and pre-existing thoughts and beliefs about the matter. The repeated reading of the transcripts helped me to become immersed in the data, and thus remain faithful to the participants' accounts.

The second phase included generating initial codes from each professional group, that is, the teachers, paediatricians and the police, and these were themed up at group level. Charmaz (2001, p. 3) described this process as the 'critical link' between data collection and the understanding of the meaning. At this stage, I started to produce codes from the data. These captured what was going on in the data gathered from the three groups of professionals. Coding allowed me to focus on specific elements of the data and organise them in a more simplistic way. This was not just a labelling exercise but it enabled me to start linking. Richards and Morse (2013, p. 154) stated that coding '…leads you from the data to the idea and from the idea to all the data pertaining to that idea'. During the coding process, I was guided by Charmaz's (2014, p. 45) bones metaphor, that coding '…generates the bones of your analysis…[I]ntegration will assemble those bones into a working skeleton.'

The next phase involved searching for themes within each group of professionals. These were developed from the list of different codes with the aim of shedding light on the research questions (Charmaz, 2001). The themes were emerged to give meaning to those recurrent experiences that were identified throughout the data, which were

fragmented and incoherent, when not organised under a theme. As Braun and Clarke (2006) highlighted, a theme was not inevitably determined by quantifiable measures but rather on whether it captures significant information that could illuminate the research questions. Themes were derived using an inductive approach so, they were generated from the raw data. This means that statements were taken directly from the participants rather than from theories or existing research (Bradley, Curry and Devers, 2007).

The fourth phase was characterised by the refinement of the themes that were devised for each profession. This was done by reading again through the data and each theme was reviewed to ensure that the coded data that the theme came from, followed a logical pattern. Following this process, I looked at all the themes that had emerged from the three professions. Through this process, I was able to identify that there were no major discrepancies between the elicited themes. On the contrary, there existed common views and ideas between the professionals from the three groups. Seeing these similarities, I decided to amalgamate the themes from the three professional groups and present the views and lived experiences of the different professionals under the same themes. This was considered useful for easier access to the reader. Meanwhile, any differences in views and opinions between the different professionals could be pointed out clearly under each theme.

In the reviewing process, some codes that were initially placed in the *miscellaneous* theme were observed to have links to a particular key theme. When adding them to such theme, they gave it an important dimension. For example, the *common training needs* was initially placed with the miscellaneous themes because it did not fit

anywhere. However, when this was added to the theme *tailored to their specific roles* (Theme 2 of motivators), such amalgamation brought out the participants' agreement about three common training characteristics which they believed training should include to motivate them. At this stage I also checked whether each theme truly elicited the meaning in the data set as a whole, to ensure the validity of the themes (Braun and Clarke, 2006). This reviewing process allowed me to succinctly summarise the data in a way that it could highlight the most significant themes in addressing the research questions.

The defining and naming themes phase included organising each theme into a coherent and consistent account (Braun and Clarke, 2006). For each individual theme I wrote a detailed analysis, 'identifying the 'story' that each theme tells' (Braun and Clarke, 2006, p. 92). This phase was characterised by my constant effort to fit every theme into the overall 'story' presented by the data. As King (2004) suggested, I shared the themes with another researcher to ensure that they were clear enough for the reader.

The final phase included the writing up of the final analysis in the Findings chapter. Direct quotes from the participants were extracted to help the reader obtain a more concrete understanding of the conveyed message (Fereday and Muir-Cochrane, 2006). Referring to the original text would strengthen the argument being made, especially when the latter is unique. This phase extended to the Discussion chapter where I commented more on the interpretation of these themes, and discussed these in relation to the literature. As Clarke and Braun (2013) suggested, the ultimate aim of this phase was to present an intense story with the data that evoked interest about

what were the main motivators for professionals to engage in autism, what training delivery they enjoyed most and what were the barriers that were hindering their participation.

3.13. Data validity and reliability

The crux of the research process is in the conclusions that are drawn about the particular experience being studied. Thus, it is essential to pay attention to validity and reliability from the outset (Thomas and Magilvy, 2011) because these are ways of demonstrating the rigour of the research process and to establish trust in the research findings. While validity is the closeness of what a study actually measured to what the study claimed to measure, reliability is the extent to which a study gathers the same findings when repeated. Validity was enhanced by using a mixed methods design, where both numerical and text data were gathered. The survey was employed to get a snapshot of the professionals' perspectives on awareness training in general and on autism in particular. On the other hand, interviews were used to get a richer and deeper understanding of what motivates and hinders professionals from undertaking training on autism. Hence, the quantitative and qualitative data collected allowed triangulation of findings. When quantitative statistics are used to support qualitative data, they lead to what Becker (1970) called *quasi-statistics*, where a simple count of things can support terms such as 'many', 'some' and 'most' in a more precise manner. Sandelowski, Voils, and Knafl (2009) argued that this is done:

> …to facilitate pattern recognition or otherwise to extract meaning from qualitative data, account for all data, document analytic moves, and verify interpretations (Sandelowski, Voils and Knafl, 2009, p. 210).

Maxwell (2005) pointed out that the use of quasi-statistics is an effective method to increase the validity of a study. Validity in this study was also enhanced through the triangulation of perspectives on training collected and analysed from paediatricians, mainstream secondary school teachers and police. This gave access to the views of three different professions about the same topic in terms of their eagerness to participate in training on autism.

In qualitative research, one of the potential factors that could hinder the accuracy of the findings is researcher bias. In order to minimise the latter, prior to the start of the research process, I enunciated my beliefs about the subject matter. I put pen to paper to identify and reflect on my own personal beliefs and experience about the selected professionals' interest to learn more on autism. This enabled me to remain vigilant not to prejudice the outcome of this study by favouring a pre-conceived position on this matter. This was especially the case in the interviews, where given that the format was more of a natural conversation, I was cautious not to influence the participants' answers on the topic. The schedule of questions (see Appendix 3) that was prepared beforehand to guide the interview served to lessen the possibility of bias since it constantly reminded me about the needed information rather than asking *here and then* questions which could be more naturally inclined to influence the participants' responses.

To increase reliability, the online survey which was utilised to collect quantitative data used systematic scoring, which is naturally less dependent on researcher's subjectivity. This ensured consistency in the outcome. Moreover, the wording of the

survey was kept as simple as possible to avoid possible misinterpretations by some respondents.

When it comes to qualitative inquiry, the focus is more on trustworthiness rather than on the concept of validity and reliability, which in qualitative studies is more obscure. Thus, with regards to the qualitative part of this study (data which was gathered through the face-to-face interviews with the participants) more attention was given to trustworthiness. Guba (1981) put forward four criteria for trustworthiness to be achieved, namely (i) credibility (ii) transferability (iii) dependability and (iv) confirmability. In other words, trustworthiness is all about establishing these four things. Credibility is about how confident the researcher is that the study's findings are true and accurate. In this study, the methods' triangulation through the gathering of data from two research methods, is believed to have served as a useful technique to check the consistency of the findings. Consistency demonstrates that the findings are credible.

Transferability is similar to generalisability or external validity in quantitative research, and it is established when the researcher provides evidence that the research study findings could be applied to other contexts, situations, times and populations. The researcher's responsibility is not to prove that the findings will be applicable but to provide enough evidence to the reader that demonstrates that it could be applicable. This responsibility was very well expressed in Lincoln and Guba's (1985) following quote:

> It is, in summary, not the naturalist's task to provide an index of transferability, it is his or her responsibility to provide the data base that

> makes transferability judgements possible on the part of potential appliers (Lincoln and Guba, 1985, p. 316).

In an attempt to provide such evidence, I followed Lincoln and Guba's (1985) recommendation of providing thick description. This was done by providing a detailed account of my experience during the research process. This also included a direct reference to cultural and social contexts revolving around data collection. For instance, I included details about the participants' willingness to do the interviews during working hours not after work. Providing such information attempted to facilitate the reader's understanding of the research setting and hence enable other potential researchers to judge whether transferability is possible.

Dependability also forms an essential part of trustworthiness since it establishes that the research findings are consistent with the collected raw data, and repeatable. I wanted to ensure that if another researcher was to look over the obtained data, s/he would arrive at similar findings, interpretations and conclusions about the data. Also, the role of the interviewer has a lot of weight during the interview. *Interviewer error* refers to a variance in the collected data, when the same interview is carried out with the same participants by a different interviewer (Davis *et al.*, 2010). Aware of the impact the researcher could have on the participants' responses, and to minimise the interviewer error, I was very cautious to remain objective throughout the whole interview. I rehearsed the interviewing process before conducting the actual interview. Moreover, during the interview, I emphasised my role as a researcher rather than an autism professional, and my interest to learn more about the professional experiences of the participants. Another technique that this study adopted to demonstrate dependability, is by conducting an inquiry audit of the research study. An outsider

researcher examined the processes of data collection, data analysis and the results of the research study to confirm that the findings were accurate and reflected the data that was collected. All interpretations and conclusions were scrutinised to verify whether they were supported by the gathered data. Such exercise was beneficial to ensure that there was not anything missed or other details that I did not give careful consideration to, in the final reporting.

The confirmability criterion of trustworthiness is the extent to which the findings are impartial, in the sense that they truly represent the participants' responses rather than stemming from any potential bias or personal motivations of the researcher. To establish confirmability in this study, I used an audit trail, which is a technique where from the outset, all the research steps are recorded. I recorded all the actions that were taken during the research process including the reasoning underlying the decisions taken. For instance, I recorded what topics were distinctive and what were the reasons for the amalgamation of codes together. Through this transparent detailed account of the data collection process, data analysis and interpretation, the reader can determine whether the study's findings may be relied upon as a means to investigate further. Also, the details provided aimed to ensure that the researcher bias did not interfere with the interpretation of the gathered data, by for instance altering the interpretation of what the research participants disclosed to fit a schema that existed in the researcher's mind.

3.14. Researcher positionality and reflexivity

Researchers are part of the social world that they are attempting to study, and ‘there is no way we can escape the social world to study it’ (Hammersley and Atkinson 1995, p. 17). Thus, it is important that the researcher reflects on his own positionality in relation to the topic that is being explored, the participants taking part in the study, as well as the process and context in which the research is situated (Savin-Baden and Howell Major, 2013). This concept of reflexivity denotes that researchers should acknowledge themselves as part of the research and bring to light their own selves in the research through a self-assessment about the researcher’s personal views and experience. This reflexivity enables the researcher to clearly identify and declare positionality. By conducting such reflection, researchers can understand better their possible influence on the research process, rather than try to obliterate their effect (Cohen *et al.*, 2011; Greenbank 2003). Interpretation of the research’s outcomes are inseparable from the researcher’s positionality (Foote and Bartell, 2011; Smith, 1999).

I work at a specialised Centre in Malta for autistic people from the age of 2 to 50 years. My main work involves providing interventions for autistic people and support to their families. Since my main work deals exclusively with autism, this could have led to a situation where I view the professionals studied in this research solely through the autism lens. It was easy to assume that these professionals shared the same interest in autism as myself. This could have also led me to interpret this as lack of interest from their side. It was recognised that being an outsider to the professionals being studied, could make it difficult for me to understand what knowledge is required for their particular work to provide adequate support for autistic people. Additionally, my

main interest in autism could have made me over-enthusiastic to provide as much information on autism as possible while overlooking the fact that these professionals might only meet autistic people occasionally.

Thus, it was decided that in-depth interviews could give me a good opportunity to better understand the professionals' lived experience with different kinds of people who require their support. Both the online survey and the interviews were intended to give me more understanding of what really motivates participants to attend awareness-raising sessions on various topics. The rationale behind focusing on training in general rather than on autism only, was to minimise the potential researcher's bias of seeing things from the autism lens only and to avoid the tendency of recycling the same ideas. Moreover, this technique helped me to broaden my views and analyse what seems to work in other areas. Then the identified successful elements in other training courses would serve as a guide in the creation of training sessions or material on autism. The fact that the ultimate aim was to identify the issues in developing training on autism was likely to minimise the potential bias of stopping at the professionals' knowledge about autism. I was more interested to explore what motivates and deters professionals to engage in autism training because I believe that having access to this data would facilitate the development of an effective medium that could help them to better understand autistic people.

The analysis of the survey data was very straightforward and there was little room for bias in interpretation. The interviews were intended to give me the opportunity as an outside researcher to understand better the lived experiences of the professionals being researched. A potential bias could have been that since my position in the field

allows for regular contact with autistic people and their families, my thinking could have been influenced by the numerous anecdotes of people who were not treated appropriately by the professionals being researched. Thus, an effort was made not to let such anecdotes interfere with the data collection in this study.

3.15. Ethical considerations

An essential part of the research process is considering ethical principles that the researcher needs to follow, in order to protect all the participants taking part in the study and to assure trust in the outcomes of the research. Israel (2015, p. 3) stated that '…by caring about ethics and by acting on that concern we promote the integrity of research.'

To ensure that appropriate measures are taken in this study to actively adhere to the ethical principles, the British Educational Research Association' Ethical Guidelines for Educational Research (BERA, 2018) was consulted throughout the data collection, analysis and reporting of this study. This study has ethical approval and clearance from the University of Birmingham. A copy of the University's ethical approval form can be found in Appendix 7.

A reflection about the ethical considerations was done at the very initial stages of the planning of the research, to avoid getting carried away with the enthusiasm of collecting the required data without considering the interests of all the participants and ignoring the quality assurance. In this study, I made sure to respect all the human participants involved, and conscious of the enthusiasm to investigate the studied topic in-depth, I was attentive that this does not lead to asking insensitive or over-intrusive questions.

Webster, Lewis and Brown, (2014, p. 82) argue that '…recognising the tension between quality and ethical principles is therefore an important first step in developing an ethical conscience.'

Providing sufficient information to the potential participants is also important. Thus, I ensured that participation was voluntarily and that participants gave their informed consent. The latter could only be offered if the participants could understand the information provided and agree voluntarily with the nature of the research and their role within it. Very often informed consent in surveys is overlooked. Thus, I adopted Mahon's (2013) recommendation whereby participants had to go through the information sheet mentioned above and give their consent before accessing the survey. This information sheet disclosed all the relevant information about the research, and thus aimed to help the participants understand the purpose of the research and their participation in it. This was also presented to the participants who were to take part in the interviews. The information sheet made it clear that all the relevant information was provided and no deception was used. Additionally, as mentioned previously, since I aimed to audio/video-record the interview, a specific permission was requested from every single participant. Providing information to the participants did not stop prior to their involvement in research but was extended to when their participation was completed. Indeed, following their participation, the participants were given a debriefing form (see Appendix 8). The aim of the latter was twofold: to show a sense of gratitude to the participants for finding the time to take part in this study, and to provide potential sources from where they can obtain more information on autism. This was done to address the interest to get to know more on

autism which could have been triggered in the participants following their participation in this study.

The principle of voluntary participation was also extended to the right of every participant to withdraw, and I made sure that all the participants were aware of this right. Participants were reassured that there were no negative consequences if they decided to withdraw even if they had already agreed to take part or perhaps started giving responses. I made it very clear that in the latter case, the provided data will be deleted and it is my responsibility to deal with the consequences of such withdrawal. This felt important to be clearly communicated to the participants to avoid situations where participants force themselves to participate not to create problems for me.

Moreover, participants were made aware that their participation in this study would not harm them personally or the profession they represent. In social science research harm is often understood in terms of causing '…psychological distress, discomfort, social disadvantage, invasion of privacy or infringements of rights' (Israel, 2015, p. 124).

Since I was interested in gathering data which could reflect their autism knowledge, I made sure that their responses did not cause psychological distress or made them feel uncomfortable. Moreover, it was also ensured that this data would not have any consequences on their place of work. This was emphasised through two important principles of anonymity and confidentiality that were adopted in this study. For instance, the identity of the participants in the online survey was kept anonymous and participants were ensured that the data gathered through the interviews would remain

confidential. I made sure not to disclose information that can in anyway reveal the participants' identity. All the information regarding the study was placed on a password-protected computer known to me only and at the completion of the study, all the contact information was destroyed. All the interview participants were informed that for data analysis purposes, the interview recording will be transcribed. They were also informed about the input of a research assistant who would be helping me to transcribe some of the interviews. It was made very clear that the transcriber will be bound to adhere with the anonymity and confidential principles.

3.16. Chapter summary

The main aim of the methodology used in this study was to place myself as a researcher within the context of the professionals being studied. I wanted to understand what could motivate them to take part in autism training and what could hinder their participation. This chapter showed how the most suitable methods to study this phenomenon were a survey and in-depth interviews. The rationale underpinning my decision to choose these methods and reject others was that a survey would give a good snapshot of the studied phenomenon and this could be enhanced through a more detailed account from participants during interviews. The advantages and disadvantages of each method were provided, and this section showed that notwithstanding the limitations of surveys and interviews, they remained that most suitable methods to answer the research questions.

Additionally, this chapter provided details about the selection and recruitment of the three samples for both the survey and the interviews. The key people in every group

played a very important role, especially in conducting the survey because they were the people who sent the survey link to a random sample that I took through the use of the Research randomiser website. The survey was completely anonymous. The same procedure was adopted to select 10 participants from each group for an interview. Once the selected participants accepted to take part, contact was made via email to coordinate a convenient day and time. Unfortunately, as soon as I started this process, the Covid-19 pandemic cropped up so I had to adjust my plan from face-to-face interviews to online via Skype.

Prior to using these two methods in the main study, piloting was completed. This chapter provided a detailed account of how the piloting was carried out. I obtained very useful feedback from the pilot participants, which led to a number of changes in the main study. This chapter also provided information on data analysis. The survey was analysed quantitatively using SPSS while the interviews were analysed qualitatively using thematic analysis. My positionality as a researcher and reflexivity were also taken into consideration so that the outcomes of this study could be understood in such context.

The last section of this chapter was devoted to the ethical considerations in this study. Every stage of this research process was characterised with a continuous effort to protect all the participants and to make sure that the information provided remained anonymous and securely kept.

The next chapter will present the findings of the survey. It will highlight the procedure that was adopted during the survey process and the analysis of the responses.

CHAPTER 4
RESULTS OF THE SURVEY

4.1. Introduction

This chapter will present data on the response rate to the survey from the three samples and explains how the survey data were analysed. The main findings from the returns of the paediatricians, mainstream secondary school teachers and the police officers will then be presented and discussed.

4.2. The samples and their response rate

A total of 366 professionals (66 paediatricians, 150 mainstream secondary school teachers and 150 police officers) were invited to complete the survey using Qualtrics (see Appendix 2 for a copy of the survey questions). The survey was conducted between January and March 2019. Potential participants were given two weeks to respond. The survey link was sent to them via an email from a key person in each profession who was my main contact. These key people were the Head of Paediatrics at the University of Malta, Headteachers or Assistant Headteachers of mainstream secondary State Schools and the Police Superintendents for each of the 10 districts in Malta. These people were asked to encourage the randomly selected colleagues to complete the survey. A total of 162 participants responded to the survey. The overall response rate was of 44%. Table 9 shows the number and percentage of respondents who participated in each group:

Table 9. Total number of males and females in the sample and percentage of respondents in each group

Group	Sample size	Males N (%)	Females N (%)	Respondents N (%)	Males N (%)	Females N (%)
Paediatricians	66	29 (44%)	37 (56%)	29 (44%)	15 (52%)	14 (38%)
Teachers	150	50 (33%)	100 (67%)	76 (51%)	21 (42%)	55 (55%)
Police	150	118 (79%)	32 (21%)	57 (38%)	42 (36%)	15 (47%)

As shown in Table 9, there was a difference between the number of returns from male and female respondents, particularly for the paediatricians and police, as the male/female percentages are closer for teachers. These differences may reflect differences in the target population (e.g. there are more males in the police force). Overall, the percentage return rate for the teachers was the highest, whilst the lowest rate was for the police.

The lowest response rate when taken by gender groupings were of female paediatricians (38%) and male police (36%). When analysing possible reasons to a lower response rate, with regards to male police, during the interviews female police commented about their male colleagues and described them as possibly 'less caring' than females. Considering that there could be such an observed difference in the attitudes of male and female police, it could be that such characteristics could have made males less keen to take part in the survey. It could also be that male police think that there is less they can do to support autistic people, than their female counterparts.

Turning to the low response rate of female paediatricians, it was quite surprising, given that research indicates that women are more likely to participate in online surveys than men (Curtin, Presser and Singer, 2000; Moore and Tarnai, 2002; Singer, van Hoewyk and Maher, 2000; Smith, 2008). However, upon reflecting on the paediatricians' feedback, they work long hours and they consider their job as very demanding. It could be that Maltese female paediatricians may find it hard to manage their career duties and family responsibilities, and thus, this could have affected their allocation of time to respond to the survey. Similarly, the female teachers had also commented about their responsibilities for other duties which limit their time to take part in training after work hours. However, this phenomenon did not appear to be reflected in their survey response rate, as there was a 55% female response rate, compared to a 42% response rate for male teachers. Male and female response rates could also be a result of any potential differences in male and female values operating in a gendered online environment.

4.3. Method of analysis

The four main aims of the survey were:

1. to ascertain whether the respondents had attended training in general on any topic including autism
2. to determine what might motivate them to engage in autism training
3. to identify which method of delivery they found most useful and
4. to pinpoint the potential barriers to participating in autism training

They were asked seven questions on the training attended, two questions about the form of training that they find most useful and four questions on the motivators and barriers (see Appendix 2 for a copy of the survey). Statistical analyses were performed on the data using SPSS Version 24. The participants completed the survey on Qualtrics and the responses were then exported to SPSS software. Descriptive data of socio-demographic information were gathered. To analyse the differences and similarities amongst the three groups of professionals, cross-tabulation was used. Training preferences, motivators and barriers to attend autism training were described using frequencies which will be presented in graph form.

4.3.1. Handling missing data

The problem of missing data is inevitable in investigations that involve human populations (Allison, 2002). Incomplete data in surveys is mainly due to participants failing to respond for all the survey items, which is known as item non-response. Allison (2010, p. 631) argues that what to do about missing data is 'perhaps the most universal dilemma in statistics.'

Out of 162 respondents, 91 were missing at least one value. However, a pattern of missing data in particular questions was observed. These were questions that asked participants to rank a range of more than 5 options (e.g. Q22 and Q23). The majority of respondents ranked the first 3 or 5 and then stopped. The pilot study did not suggest that this would happen and so this was unexpected. As Cox et al. (2014, p. 7) argue, despite the conscientious work done beforehand, 'researchers typically end up with datasets for which they do not know exactly why some data are missing'.

Given that missing data were mainly related to not ranking the full range of options, no need was felt to adopt any method of missing data adjustments when reporting the data.

4.4. Demographics of the respondents

Of the 162 respondents, 78 were male and 84 were female. Figure 1 shows the number of males and females in each of the three professional groups. The majority of the respondents (n=86; 53%) were between the ages of 30 and 44 years. Full details of the age groups are given in Table 10. The respondents were relatively experienced, with the majority (n=124, 77%) having more than 5 years' experience in their profession. The average length of working experience for all the respondents was 14 years (Paediatricians: 21 years; Teachers: 14 years; and Police: 10 years). Table 11 shows the number of years that respondents had worked.

Figure 1. Males and females in each professional group

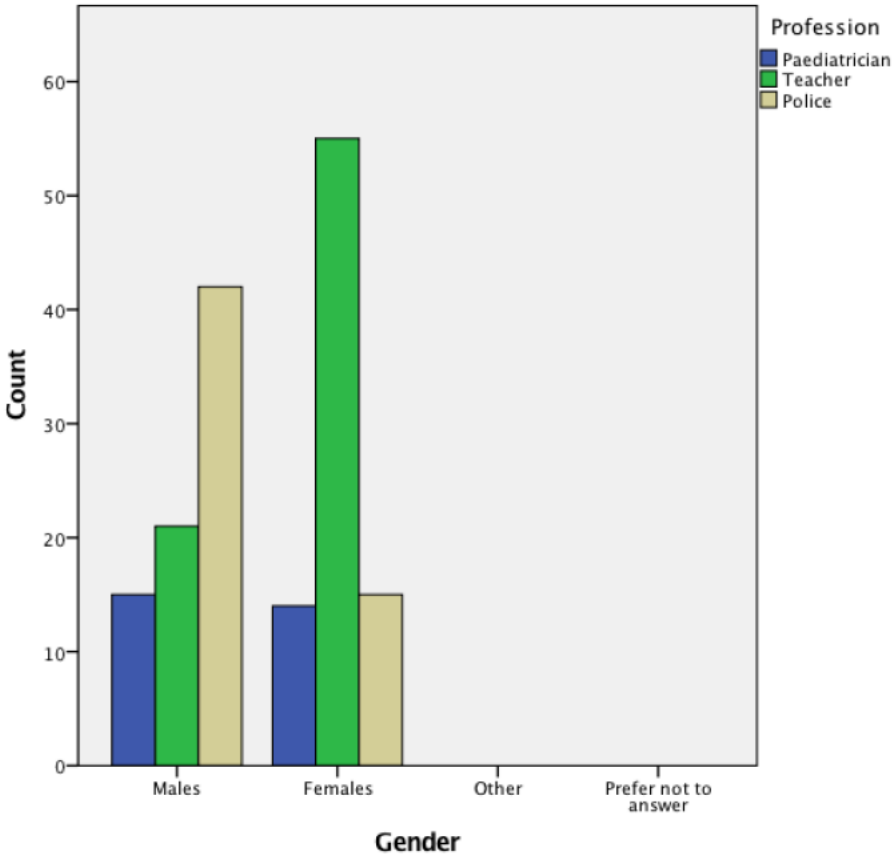


Table 10. Participants' age group for each profession

Age Group in years	Paediatricians N (%)	Teachers N (%)	Police N (%)	Total N (% of total sample)
Less than 20	0 (0%)	0 (0%)	1 (2%)	1 (1%)
20 – 24	0 (0%)	3 (4%)	16 (28%)	19 (12%)
25 – 29	5 (17%)	5 (7%)	7 (12%)	17 (10%)
30 – 34	1 (3%)	15 (20%)	8 (14%)	24 (15%)
35 - 39	3 (10%)	23 (30%)	10 (18%)	36 (22%)
40 – 44	4 (14%)	16 (21%)	6 (11%)	26 (16%)
45 – 49	3 (10%)	9 (12%)	6 (11%)	18 (11%)
50 – 54	8 (28%)	3 (4%)	1 (2%)	12 (7%)
55 +	5 (17%)	2 (3%)	2 (4%)	9 (6%)

As shown in Table 10, the majority of police were younger than 35 years old (n=32; 56%). Most paediatricians were over 40 years of age (n=20; 69%) and the majority of teachers were between the ages of 30 and 44 years old (n=44; 58%). This could have influenced the information they had been given about autism in their initial training, the younger members being more likely to have had some input on autism.

Table 11. Number of years the respondents had worked in their profession

Years	Paediatricians N (%)	Teachers N (%)	Police N (%)	Total N (% of total sample)
1 - 5	5 (17%)	6 (8%)	26 (46%)	37 (23%)
6 – 10	2 (7%)	19 (25%)	7 (13%)	28 (17%)
11 – 15	2 (7%)	24 (32%)	5 (9%)	31 (19%)
16 – 20	6 (21%)	16 (21%)	10 (18%)	32 (20%)
21 – 25	5 (17%)	9 (12%)	6 (11%)	20 (12%)
26 – 30	5 (17%)	1 (1%)	1 (2%)	7 (4%)
31 – 35	2 (7%)	1 (1%)	1 (2%)	4 (2%)
36 – 40	1 (3%)	0 (0%)	0 (0%)	1 (1%)
More than 40	1 (3%)	0 (0%)	0 (0%)	1 (1%)

Table 11 shows that the paediatricians were the group that had worked the longest in their profession, the majority (n=22; 76%) having worked for more than 10 years. This was also the case for teachers, where most of them (n=51; 67%) had more than 10 years' experience. For the police, in contrast, the majority of respondents (n=33; 59%) had fewer than 10 years' experience.

4.5. Experience of awareness-training on any topic in the last three years

Ninety-five respondents (59%) had not attended any awareness-raising training on any topic in the past three years, with the police being the largest group in this category (n=49; 86%). In contrast, 16 paediatricians (55%) and 43 teachers (57%) had attended awareness-raising courses on a variety of topics during the last three years.

Of the 67 respondents who had undertaken an awareness-raising course, a variety of topics were covered, with a few mentioned more than once (e.g. coeliac disease amongst paediatricians, Attention Deficit Hyperactivity Disorder (ADHD) and autism amongst teachers, and domestic violence by the Police). Only 5 respondents (3%) (4 teachers and 1 paediatrician) had taken an awareness training course on autism in the past 3 years.

Of the 67 respondents who had attended awareness-training in the last 3 years, 43 (64%) were females, and 24 (36%) were males. Using Pearson's correlation coefficient to measure the strength of the relationship between these two variables: gender and training, it was found that there was a statistically significant relationship between attending awareness training courses and gender: $p\ (0.008) < .05$. So, it appears that females were more likely to undertake awareness courses than males. This was also observed in the attendance of autism training in the last three years, $p\ (0.044) < .05$ (Pearson correlation .158). However, both male (n=35; 22%) and female (n=47; 29%) respondents said that they would be willing to commit between one and three days to training in the next two years.

4.5.1. Satisfaction with the training they had attended

Professionals were asked to state how satisfied they were with the training they had attended. As illustrated in Table 12, the majority of respondents across all groups said they were 'quite satisfied'.

Table 12. Respondents' satisfaction with the training they had attended

	Paediatricians N (%)	Teachers N (%)	Police N (%)	Total N (% of respondents who attended training)
Not very satisfied	0 (0%)	10 (23%)	1 (13%)	11 (16%)
Quite satisfied	12 (75%)	24 (56%)	7 (88%)	43 (64%)
Very satisfied	4 (25%)	9 (21%)	0 (0%)	13 (19%)

All the paediatricians were satisfied with the training they had received. There were 10 teachers and 1 member of the police who reported they were not very satisfied and none of police officers who attended training were very satisfied.

4.6. Preference for type of training and delivery

The most preferred training method across all three groups was a full day seminar (n=60; 37%), and the least preferred was a leaflet on a topic (n=8; 5%). Notably, there was no difference in the preferred training method across the three groups, nor a distinction between groups on the least preferred training method. Table 13 shows the ranking preferences of all the three groups for each of the training methods.

Table 13. Participants' ranking of their most preferred training method

Training Method	Paediatricians N (%)	Teachers N (%)	Police N (%)	Total N (% of total sample)
Full day seminar	12 (41%)	31 (41%)	17 (30%)	60 (37%)
My own internet searches	7 (24%)	23 (30%)	13 (23%)	43 (27%)
Half day seminar	7 (24%)	16 (21%)	13 (23%)	36 (22%)
Training DVD	0 (0%)	4 (5%)	9 (16%)	13 (8%)
A leaflet	4 (14%)	2 (3%)	2 (4%)	8 (5%)
Other	0 (0%)	2 (3%)	1 (2%)	3 (2%)

N = total of respondents who gave a ranking of 1 or 2

The factor most likely to influence their decision to attend an awareness training course, was the relevance of the topic to their everyday work. Sixty-five respondents (16 paediatricians, 29 teachers and 20 police) gave this factor a score of 10. Other motivators were that the training was held during work time hours and that the cost of the training was met by the employer (see Table 14).

Table 14. Factors that are likely to influence the respondents' decision to attend training

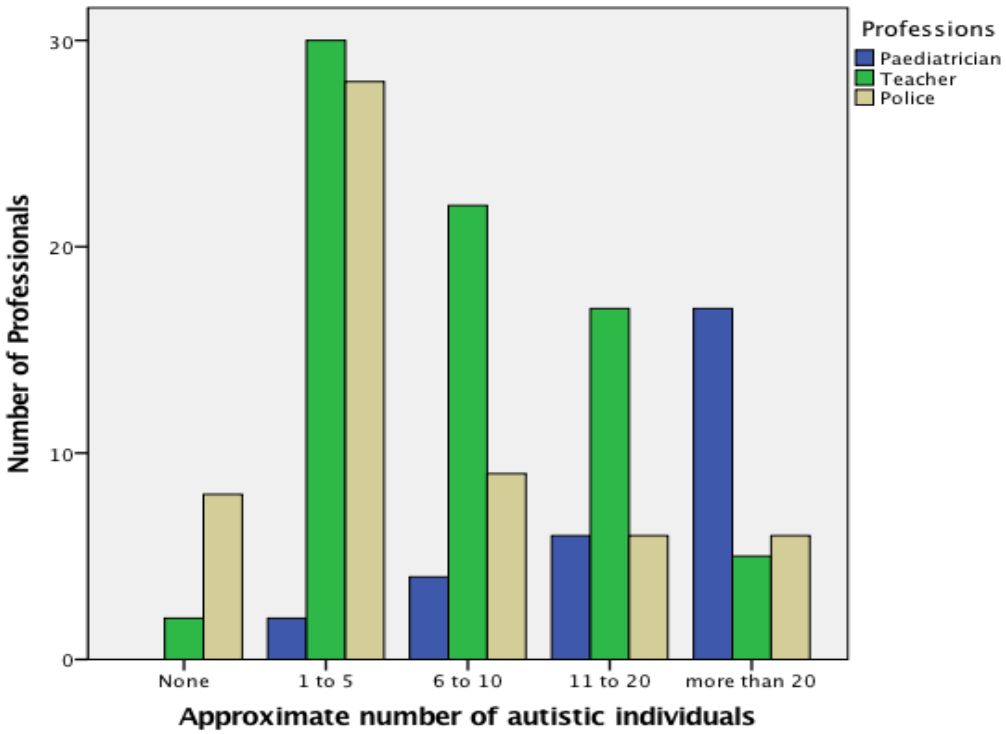
Factors	Paediatricians N (%)	Teachers N (%)	Police N (%)	Total N (% of total sample)
If it is of use to me in my work on a regular basis	29 (100%)	70 (92%)	45 (79%)	144 (89%)
If the delivery method suits me	23 (79%)	64 (84%)	41 (72%)	128 (79%)
If it is held during work time	12 (41%)	60 (79%)	49 (86%)	121 (75%)
Location is central with parking facilities	19 (66%)	57 (75%)	44 (77%)	120 (74%)
Cost of training is met by my employer	12 (41%)	60 (79%)	42 (74%)	115 (71%)
If it is not too time-consuming	25 (86%)	55 (72%)	33 (58%)	113 (70%)
If a certificate of attendance is given	13 (45%)	57 (75%)	38 (67%)	108 (67%)
If it enhances my promotion prospects	10 (34%)	42 (55%)	32 (56%)	84 (52%)
If refreshments are provided	7 (24%)	27 (36%)	24 (42%)	58 (36%)

N = total of respondents who gave a rating between 6 and 10

4.7. Respondents' contact with autistic people

More than half of the paediatricians (n=17; 59%) said they had met more than 20 autistic children in the last 3 years. This contrasts significantly with the teachers and the police where only 5 teachers (7%) and 6 police (11%) said that they had met more than 20 autistic people. The majority of teachers and police thought that they had met between 1 to 5 autistic individuals in the last 3 years. These data are shown in Figure 2.

Figure 2. Number of autistic individuals that the respondents had met in the last 3 years



4.8. Respondents' initial training on autism

When asked whether they were given any information on autism in their initial training, a significant difference was found between paediatricians and police. While 76% of paediatricians reported that their initial training included information on autism, 91% of the police said they had not had such information. In the case of teachers, whilst 43% reported that information was given, 57% of teachers said it was not. Interestingly, within the younger age groups 20 to 29 years, all the teachers said that their initial training included information about autism. However, there were no patterns in the older age-groups, and respondents within the same age-groups answered variably to

this question. With regards to whether the autism information they were given was adequate, more than half of the respondents across the three groups (n=34; 58%) thought that it was not enough. Only two respondents reported that the information provided was adequate.

4.9. Ratings on the importance of training on autism

In terms of how they viewed the need for training in autism, of the 162 respondents, 105 (65%) gave a ranking between 8 and 10, equivalent to extremely important. Three main points were identified:

(i) The majority recognised that autism was part of their work,
(ii) Training was identified as missing, and they understood the consequences of this, and
(iii) They wished to learn more on autism to be able to support better autistic people

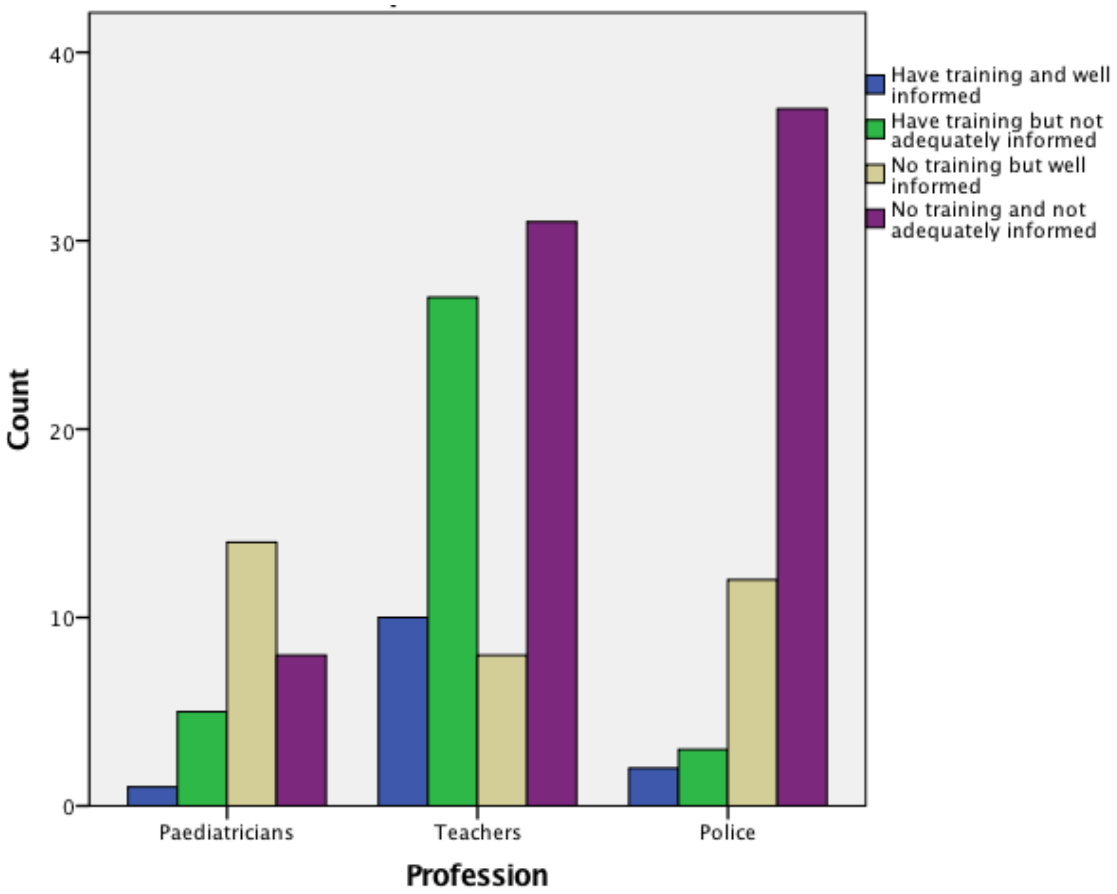
A teacher said: “It is something that we face a lot in the nature of my job and I feel at a loss on how to deal with such a condition” (Female, 30-34 years age group).

Similarly, one paediatrician said that, “Training is lacking and therefore I don’t feel equipped well enough when dealing with such cases” (Male, 45-49 years age group).

A police officer said: “Autistics (people) are part of the community and my duty is to protect the whole society, but to be sincere I know very little about autism” (Male, 40-44 years age group).

Overall, the group that considered autism training as extremely important (i.e. gave a score of between 8 and 10) were the teachers (n=53; 70%). There were fewer police officers (n=35; 61%) and paediatricians (n=17; 59%) who gave this ranking. These percentages are shown in Figure 3 which shows the participants' choice of statement that best describes them. The majority of teachers (n=58; 76%) did not feel adequately informed to support autistic children, irrespective of whether their professional sector provided training. Most of the police (n=37; 65%) shared the same sentiment, but in this group, they were more consistent in reporting that their place of work did not provide training on autism. Paediatricians did not follow this pattern and most of them (n=14; 48%) felt they were well informed about autism despite a lack of autism training in their professional sector.

Figure 3. Training provided and how well-informed professionals felt about autism



4.10. Respondents' attendance at autism training in the last three years

Participation in training on autism in the last three years was very low, with 138 respondents (85%) saying that they had not attended any such training. The greatest number of those without training was in the sample of police (n=56; 98%), followed by the teachers (n=61; 80%) and then the paediatricians (n=21; 72%).

When asked about the time they were willing to commit to autism training in the next two years, 51% of the respondents said that they were ready to commit between 1 to

3 days. Table 15 shows the data in relation to the time commitment for each group. Interestingly, while the majority of the respondents (n=155; 96%) declared that they were ready to dedicate time for autism training, only 24 (15%) had attended a learning activity on autism in the last 3 years. This shows that the respondents' current willingness to attend autism training was not reflected in their actual attendance in the past three years. It may be that this training had not been offered or that they had not felt able to give up their time.

Table 15. Time commitment respondents were prepared to give to autism training

Time	Paediatricians, N (%)	Teachers N (%)	Police N (%)	Total N (% of total sample)
None	1 (3%)	1 (1%)	5 (9%)	7 (4%)
Up to half a day	8 (28%)	18 (24%)	9 (16%)	35 (22%)
1 to 3 days	17 (59%)	44 (58%)	21 (37%)	82 (51%)
4 to 10 days	2 (7%)	7 (9%)	16 (28%)	25 (15%)
10+ days	1 (3%)	6 (85)	6 (11%)	13 (8%)

Of the 24 respondents who reported that they had attended at least one learning activity on autism, the most common topics covered were the main difficulties in autism. Nineteen (79%) were quite satisfied with the content of the training, while 5 (21%) reported that they were not very satisfied. Although the majority were quite satisfied, only 3 respondents (13%) felt that this training was effective, in terms of helping them in their everyday practice (gave a rank between 5 - 10).

4.11. Factors that might motivate professionals to attend training on autism

The most motivating factor identified across the three groups was: *to discuss the specific challenges I face when dealing with autism in my daily practice*. Sixty-seven respondents (41%) chose this factor as the most motivating (Rank 1). Having a specific responsibility for autism was not said to influence their motivation to undertake training on autism. Sixty-seven (41%) respondents ranked this factor as the least motivating (gave a rank of 4 or 5). Table 16 shows how participants ranked each factor.

Respondents showed a preference for face-to-face training in the form of discussions and talks by professionals who specialise in autism (n=66; 41%), rather than online training, which only 13 respondents opted for. However, being observed during their work and being provided with feedback afterwards was not favoured by respondents, and 76 respondents (47%) chose this form of training as the least preferred option.

Table 16. Factors most likely to motivate respondents to attend autism training

Factors	Rank 1 N (%)	Rank 2 N (%)	Rank 3 N (%)	Rank 4 N (%)	Rank 5 N (%)
To discuss the specific challenge I face when dealing with autism in my daily practice	67 (41%)	53 (33%)	23 (14%)	18 (11%)	1 (1%)
To get to know more about autism	58 (36%)	50 (31%)	32 (20%)	21 (13%)	1 (1%)
If I had a specific responsibility for autism	24 (15%)	22 (14%)	49 (30%)	64 (40%)	3 (2%)
If the number of autistic individuals I worked with increased	11 (7%)	41 (25%)	60 (37%)	43 (27%)	7 (4%)

Professionals' views were sought regarding topics they would like to be included in a training course on autism. One hundred and fourteen respondents (70%) ranked how to communicate and interact effectively with autistic persons, as high priority. As illustrated in Table 17, understanding and managing challenging behaviour was also a priority, and 102 (63%) gave this topic a ranking between 1 and 3. Full details are presented in Table 17.

Table 17. Topics respondents would prioritise in autism training

Topics	Paediatricians N (%)	Teachers N (%)	Police N (%)	Total N (% of total sample)
How to communicate and interact effectively with autistic persons	16 (55%)	56 (74%)	42 (74%)	114 (70%)
What to do when an autistic person exhibits challenging behaviour	15 (52%)	52 (68%)	35 (61%)	102 (63%)
How to identify the signs of autism	16 (55%)	40 (53%)	35 (61%)	91 (56%)
Knowledge of the main difficulties in autism	17 (59%)	45 (59%)	29 (51%)	91 (56%)
How to talk to parents	23 (79%)	23 (30%)	17 (30%)	63 (39%)
How to be able to see the positive abilities of autistic persons	10 (34%)	30 (39%)	18 (32%)	58 (36%)
What impact such condition has on the way they see and experience the world around them	13 (45%)	27 (36%)	17 (30%)	57 (35%)

N= total of respondents who gave a rating between 1 and 3

4.12. Factors that might hinder professionals' attendance at autism training

Respondents were asked to rank a number of potential barriers to attendance from the most to the least hindering. As shown in Table 18, the most frequent barriers reported (selected as rank one, two or three) were as follows: (1) they followed a very tight schedule which does not allow much time for training, (2) unaware of existing courses and (3) there were other courses which were more useful for their daily practice. These 3 factors were consistent across the three groups. Table 18 shows respondents' rankings on potential barriers.

Table 18. Respondents' ranking of the greatest barriers to attend autism training

Hindering barriers	Rank 1 N (%)	Rank 2 N (%)	Rank 3 N (%)	Total N (% of total sample)
I follow a very tight schedule which does not allow much time for training	37 (25%)	18 (12%)	17 (11%)	72 (44%)
Unaware of existing courses	24 (16%)	22 (15%)	21 (14%)	67 (41%)
There are other training courses more useful	19 (13%)	18 (12%)	19 (13%)	56 (35%)
Shortage of staff	18 (12%)	18 (12%)	11 (7%)	47 (29%)
Training fees are too high	15 (10%)	12 (8%)	16 (11%)	43 (27%)
Current courses not relevant	6 (4%)	16 (11%)	12 (8%)	34 (21%)
Lack of encouragement/support from my superior	4 (3%)	14 (10%)	13 (9%)	31 (19%)
Would take valuable time away from my main job	5 (3%)	16 (11%)	16 (11%)	27 (17%)
Not useful for my job as I never/rarely work with autistic people	4 (3%)	5 (3%)	7 (5%)	16 (10%)
There is enough information in the media	3 (2%)	5 (3%)	7 (5%)	15 (9%)
Already have sufficient knowledge	8 (6%)	3 (2%)	4 (3%)	15 (9%)
Lack of personal interest on autism	3 (2%)	3 (2%)	7 (5%)	13 (8%)

4.13. Summary of the survey data

To summarise, the survey data showed that the training experience of the respondents varied between the three professional groups. The majority of paediatricians and teachers had attended at least one training course in the past three years. However, the majority of the police had not attended any training in the past 3 years. Females were more likely to undertake training than males.

Autism did not feature at the top of the respondents' training agenda. Of those who attended a learning activity on autism, very few thought that it had helped them in their everyday practice. However, the majority of respondents said that they were ready to commit 1 to 3 days to autism training in the next two years, notwithstanding the tight work schedule which was identified by the respondents as the greatest barrier to training. The respondents' most preferred training method was a full day seminar and the least preferred a leaflet. It seems that the respondents' decision to attend autism training was heavily linked with the relevance of the topic to their everyday work. The most motivating factor was the opportunity to discuss the challenges they continuously face, in an interactive format. Respondents reported that they would like to know more on how to communicate and interact effectively with autistic people.

These results from the survey phase informed phase two of this study i.e. the interviews with the professionals. For instance, the survey showed that the majority of respondents (59%) said that they did not engage in any awareness-raising training on any topic in the past three years. This shed light on the training culture in Malta which the interview planned to elaborate on to explore the impact this might have on autism training. Another interesting result that came out from the survey was that female respondents were more willing to attend training than males. Therefore, the interviews planned to explore the participants' perspectives on this difference and how such willingness could be transferred to males. The interview also explored on the surveys' response by teachers and police who said that they had little contact with autistic people throughout their career. Interviews explored more on this finding in the context of the rising autism incidence rate and what impact this had on their motivation to learn more on autism.

Additionally, the majority of respondents (58%) said that there was not enough information on autism in their initial training. This instigated the second phase of this study to explore the impact of this lack of autism information on their motivation to engage in autism training throughout their career. The survey identified that the majority of respondents (65%) considered autism training as extremely important. Notwithstanding, the survey itself showed that the majority (85%) did not receive any autism training in the past three years. Thus, the interview was used as a medium through which this phenomenon could be explored, with the aim of identifying potential barriers to engage in training.

The next chapter will present the findings from the interviews. It will start off by highlighting the changes that had to be made from the original plan described in the Methodology chapter, mainly due to the Covid-19 pandemic. This chapter will illustrate in detail the main themes that emerged from the interviews with professionals.

CHAPTER 5
FINDINGS FROM THE INTERVIEWS

5.1. Introduction

This chapter presents the main findings of the interview data. Following the analysis of the survey data, 30 participants were interviewed to give further insight into what motivates professionals to engage in autism training and what hinders them. The first part of this chapter gives details of the participants and how they were recruited. The second part presents all the themes that were yielded about what motivates and deters participants from engaging in autism training.

5.2. Participant characteristics and recruitment

Ten professionals from each of the three groups were randomly selected from the list of participants who were invited to participate in the online survey. They were initially contacted by the key contact person for each group. Once they agreed to participate, the key contact person sent me their email address to make contact and initiate the process. Of the thirty professionals, 28 agreed to participate, one did not reply, and another one was unavailable. These two were replaced by the contact people, using the same selection procedure. Similar to the online survey, stratified, random sampling was used for the interviews to ensure that I obtained the views of both males and females in each professional group. The interviews were conducted between March and June 2020.

5.2.1. Details of the teacher interviewees

Of the 10 teachers, 4 were males and 6 were females (this is the ratio based on the gender differences of the target teachers' population). Their average age was 36 years and they had an average teaching experience of 12 years. Table 19 shows the teachers' details.

Table 19. Details of the teachers' interviewees

Code	Gender	Age in years	Subject	Teaching experience in years
TM1	M	45	Mathematics	22
TM2	M	33	P.E.	11
TM3	M	30	P.E.	8
TF4	F	38	Maltese	14
TM5	M	30	Maltese	9
TF6	F	26	Geography	4
TF7	F	39	PSED	16
TF8	F	40	English	15
TF9	F	52	English	18
TF10	F	25	French	3

P.E.: Physical Education; PSED: Personal, Social and Emotional Development

5.2.2. Details of the police interviewees

Of the 7 males and 3 female police (this is the ratio based on the gender differences in the target police population), the average age was 37 years old and their average work experience was 13 years. Table 20 below gives details of the police participants.

Table 20. Details of the police interviewees

Code	Gender	Age in years	District location	Work experience in years
PM1	M	31	Southern Region	13
PM2	M	28	Central Region	10
PM3	M	27	Central Region	6
PM4	M	43	Northern Region	19
PM5	M	35	Southern Region	13
PM6	M	32	Northern Region	7
PF7	F	41	Northern Region	13
PM8	M	26	Central Region	6
PF9	F	53	Southern Region	20
PF10	F	51	Southern Region	20

5.2.3. Details of paediatrician interviewees

The sample of paediatricians consisted of 4 males and 6 females (this is the ratio based on gender differences in the paediatricians' population). Their average age was 50 years, with an average work experience of 20 years. More details are given in Table 21. Since the population of paediatricians in Malta is very small, their area of interest was intentionally removed from the table to protect their identity.

Table 21. Details of the paediatricians' interviewees

Code	Gender	Age in years	Work experience in years
PdM1	M	58	30
PdM2	M	59	33
PdM3	M	59	22
PdF4	F	56	24
PdF5	F	55	24
PdM6	M	50	20
PdF7	F	34	6
PdF8	F	38	8
PdF9	F	40	9
PdF10	F	48	19

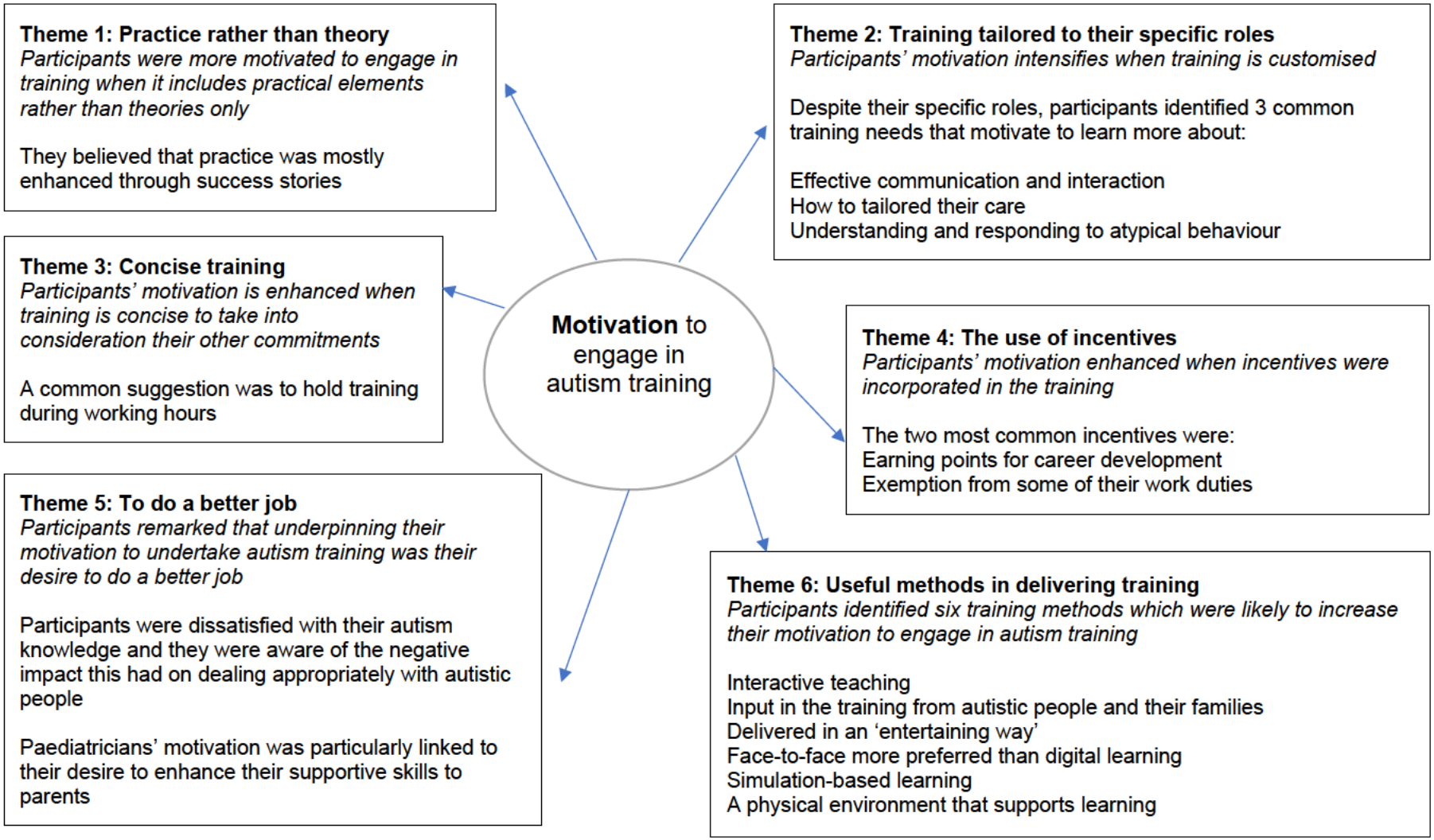
5.3. The interview experience

The average time for each interview was around 40 minutes. The interview questions can be found in Appendix 3. Overall, all the participants were very cooperative and they were very willing to talk to me about the subject. The Covid-19 pandemic served as a very good ice-breaker. Participants started talking quite naturally about the impact of the pandemic on their personal lives. It seems that this helped them to feel comfortable to talk throughout the interview. The most common questions that they asked me during the interviews dealt with the services that the Centre provides, and they specifically asked whether any training on autism is offered. As I will explain further in the section about the limitations of this study, there were times when I found it hard to stop participants from talking, especially when they went off topic.

5.4. Motivators to engage in autism training across all professional groups

Thematic Analysis (TA) assisted me to identify the most common patterns in the professionals' viewpoints in terms of what motivates them to engage in autism training. This analysis yielded six core themes: (i) Practice rather than theory; (ii) Tailored to their specific roles; (iii) Concise – to take into consideration other commitments; (iv) The use of incentives; (v) To do a better job and (vi) Useful methods in delivering training. A detailed analysis of these themes will be presented in the following sections. Figure 4 below gives a visual representation of these themes.

Figure 4. The six key themes arising from the data about what motivate professionals to engage in autism training



Theme 1: Practice rather than theory

Participants across the professional groups (7 paediatricians; 9 teachers; 8 police) agreed that having a practical element in the training would be a significant motivator. They believed that practical knowledge was more effective than theory because it makes autism easier to understand. Their viewpoints indicated that participants were more eager to obtain knowledge on how to make their encounters with autistic people smoother.

One particular point raised by the majority of the teachers (n=8) was that practical training promotes experiential learning. They said that when compared to other topics, they found autism too difficult to understand through theories. The majority of teachers believed that learning about autism could occur more through practical sources. For example, TF6 said:

> I think I'd be very much motivated to participate in autism training if it could help me acquire hands-on experience…perhaps, having workshops that present real case classroom scenarios…and we need to tackle the situation by applying autism knowledge…in other words we learn by actually doing, rather than by just listening to theories!

Teachers said that unfortunately this kind of training was lacking in Malta because the trainers themselves did not have hands-on experience of autistic pupils in a classroom environment. A teacher explained:

> They (the trainers) won't know the reality of the class, so the training provided always lacks practicality because they ignore the context of the class situation (TM5).

A similar thought was expressed by the majority of the paediatricians (n=7). Their reasoning can be represented in the words of one of the paediatricians who said:

> Would this [training] help me to solve at least some of my everyday difficulties when dealing with autistic patients? (PdF5).

They argued that their motivation for autism training stems mainly from their desire to be more capable of handling autistic patients in the clinic. They believed that such knowledge can be better achieved through practical knowledge. For example, one paediatrician stated:

> What we really need is training which is practical…usually it boils down to the same problem…how to examine autistic children and keep them calm, not let them become agitated…even to make them sit down on the couch you know…sometimes it's a struggle…these are the things that I'm after (PdF7).

Police inclined towards practical training since they believed that conventional theoretical training complicates their learning process. They claimed that such training would put more pressure on them, compared to practical knowledge. Their experience also indicated that:

> …practical knowledge stays more in [our] mind…[while] theories no, we tend to forget them very quickly…and above all, practical work is far more interesting (PM8).

A policeman explained practical knowledge as simple information that could facilitate their interaction with autistic people. For example, whether he should make eye contact, talk to them in simple language or use gestures only. He was very direct in justifying his choice for practical training:

> With all due respect, I don't find theories and studies very interesting, they may be to you but they don t solve my everyday problems (PM1).

Practicality is mostly enhanced through success stories

There was consensus among all participants that sharing success stories during training would be the most powerful tool to enhance its practicality. They argued that such stories can show how others made success in their interaction with autistic people. The majority of the participants (6 paediatricians; 9 teachers; 7 police) emphasised that such stories would definitely motivate their attendance. The words of one teacher: "…a success story is a magnet for my motivation to learn more on autism" (TM3) represent the majority of the participants' beliefs. They admitted that such practical knowledge had a positive impact on their learning. A common reason given was that success stories helped them to build agility because they could relate to them more.

Another teacher (TM2) emphasised that: "they [success stories] will empower me…and give me the strength that I can do it as well". Most stated that such stories would compensate for the idea that the focus was too much on the things that autistic people cannot do rather than on the pupils' potential. Teachers argued that getting to know about situations that worked well would enlighten them on how they could adjust their teaching style to accommodate to the needs of autistic pupils and thus promote their inclusion.

Similarly, police were very eager to know more about techniques that work well for autistic people. They considered others' achievement stories an important element in

training because these can: "…give you concrete ideas on how to improve your own performance when dealing with autistic individuals" (PF10).

Police emphasised that this kind of sharing would be very beneficial particularly if it comes from colleagues who would also know their work very well. However, they were aware that the experience of Maltese police officers is very limited when it comes to dealing with autistic people. They thus suggested training by experienced police from other countries: PM2 explained:

> …that would be something very helpful because it could fill the lacuna (of Maltese police having little or no experience)…they could tell us about successful interactions they might have had with autistic people and which approaches worked well. This would be the best practical knowledge I could get on autism.

Paediatricians also claimed that the sharing of success stories in training has a very intriguing effect on their motivation to attend awareness training, "for the simple reason that we as humans need to boost our confidence." (PdF9). However, many paediatricians (n=6) claimed that opportunities to listen to others' success stories were very limited. They insisted that if training would include real cases and highlights concrete ways on how these were tackled, their motivation to participate would increase. PdM2 explained that:

> …this is how it works, when you see that something can work, you'll be more moved to do something…you know I will automatically be more motivated to do something myself to help my autistic patients.

A common argument made by paediatricians was that the use of success stories in training would be an effective way of capturing their attention, something which is

needed at a time where they "…are continuously flooded with information on every topic under the sun" (PdM3). Paediatricians believed that their motivation is deeply linked to stories of success because as PdF7 said: "we, as humans, we are hard-wired to relate to these stories". Thus, training that features such stories makes it more realistic, which in turn enhances its practicality.

Theme 2: Training tailored to their specific roles

Participants across the three groups (8 paediatricians; 8 teachers; 9 police) emphasised that training provided on autism has to be created according to their specific needs. Consequently, participants were more inclined to custom training because they believed that only such training could address their specific challenges and teach them how to tailor their care for autistic people. There was a consensus that motivation to attend training was directly linked to the perceived relevance to their particular profession. Participants believed that when training has the right content, it is more likely to be regarded worthwhile. Indeed, many of the participants described generic training as "impersonal", which made them reluctant to attend.

Teachers (n=8) believed that only customised training could raise relevant school issues that they can relate to. They were adamant about this and many said that they will not even consider attending generic training on autism. For example, TM5 explained:

> Training in general doesn't work for us, I'd be much more interested to go for training that takes the class context at the core and understands the teachers' position, and helps me learn how I can adapt my teaching style for autistic pupils.

Many teachers (n=7) talked about their past experiences of generic training on autism and confirmed that this was not helpful for the classroom setting. They found it extremely difficult to put the provided basic knowledge into practice. Their views showed that this experience affected their attitude towards training, making them less motivated to participate. They described training as “more of the same” (TF10), featuring topics such as communication problems while missing out on common difficulties faced by teachers, such as how to explain and help neurotypical students understand their autistic peers. This example was commonly raised. Teachers argued that issues like these are very particular and in generic training are very often overlooked.

Paediatricians also linked their motivation to engage in training partly to its content. They said that their motivation increased when they could relate to their everyday work. However, many paediatricians (n=6) expressed disappointment about this. Moreover, they claimed that they were never consulted about their daily problems with autistic children, so the training content could never reflect their real issues. For example, a number of paediatricians (n=5) raised the issue of nutrition problems in many of their autistic patients, such as those with a very restricted diet. They all agreed that if training included such topics, they would be willing to go. However, many complained that ‘tailor-made’ (PdF4) training is very rare to find, and they expressed their wish to see more autism training that is proportionate to their roles. PdF7 said:

> …So many times, when there are such conferences (on autism)…they target different health professionals…and they go in a lot of useless detail that you start getting frustrated. And so you’re sitting down for so many hours in a conference room hearing things that are probably too detailed, and not relevant for your work after all.

The idea that custom training would be a motivator to engage in training was also brought up by the police (n=8), notwithstanding that the interviewed police never experienced any training on autism. They argued that customised training would be more appropriate since their policing challenges are unique. One police said that:

> I don't say general [training] is better than nothing because it wouldn't be useful anyway…so I wouldn't go for that…I'm willing to have autism training which is specific for police, that tackles the real difficulties that we face in our job…for example, how to interpret unusual behaviours (PM8).

Similar to paediatricians, police said that customised training can only be effective if the trainers listen to police and learn about their daily experiences. They maintained that unless the trainer understands what their job involves, training cannot be useful and effective. One policeman suggested: "…this is my advice to you: listen to police talk, don't feed them what you have in your mind because it will be waste of time" (PM1).

Common training-needs across the three groups, despite their different roles

Although the majority of the participants across the three groups emphasised the importance of training which takes into consideration their specific roles, the data showed that there were a number of common training needs. They insisted that such needs rose from their first-hand experiences. Thus, they had a direct impact on their motivation to participate in training. The words of a paediatrician echoes those of many other participants: "I'm motivated to learn more on autism because I can say that I'm aware of what my needs are to support them better" (PdF5).

The three common training needs which participants identified as the most likely to enhance their motivation were: (a) Effective communication and interaction; (b) How to tailor their care and (c) Understanding and responding to atypical behaviour.

(a) Effective communication and interaction

Participants expressed their concern that they did not have enough knowledge to interact successfully with autistic people. This was also the topic that the respondents of the survey prioritised to include in the training (see Table 9 in Chapter 4). Participants across all groups explained that their eagerness to learn how to communicate successfully with autistic people stemmed from their belief that communication is a vital skill to do their work properly. Participants argued that their lack of knowledge on how to communicate appropriately with autistic people made them feel very sad. A representation of this sentiment expressed by most of the participants can be seen in the following quotes:

> I wish I can learn more on autism because I feel I need to learn how to communicate directly with these children…unfortunately, most of the time I tend to go straight to the parents because I don't feel confident…it's like they bridge the gap, and training should address this gap… (PdF10).

> …how to communicate with autistic people is something which is highly required, what is the best approach that works with them and how I am going to handle an unusual situation because that is part of our job (PM3).

> Personally, what motivates me most to choose autism training is to learn how to communicate with these children…I feel very sad that I don't feel comfortable communicating with autistic pupils…personally this is something that saddens me most because one of the satisfactions in our work is talking with the children (TF4).

(b) How to tailor their care

Participants acknowledged that their lack of autism knowledge impeded them from being capable of providing tailored care for autistic people. Their enthusiasm for training stemmed from their belief that training can give them the tools to address the real needs of autistic people.

Teachers focused on their need to learn more how to adapt their teaching style so that autistic pupils can be included in class:

> Teachers need training on how to adapt their lessons in a way that autistic students can follow and feel part of the class, not just staying there with their LSEs (TF9).

There was a consensus that training on this matter would motivate them because this would facilitate their teaching and they would be able to reach out to autistic pupils. Many teachers (n=8) were concerned that they did not know how to recognise their needs and adjust their teaching method. Some (n=3) criticised the education system claiming that it does not recognise the real needs of autistic pupils. For example, one teacher said:

> I'm afraid that the education system in Malta is not recognising the needs of autistic pupils…unfortunately it is still very much one size fits all and I think that only proper training can change this (TM1).

This issue was also raised by the police (n=7) who emphasised that they felt unable to adjust their approach to deal with autistic people. They claimed that training should include how to respond to autistic people to avoid situations of 'misinterpretation of behaviour' (PM5) and be able to support them. Police confirmed they were never

taught how to act differently with autistic people and they recognised this as a shortcoming. However, it was evident that police were determined to acquire this knowledge if it was made available to them: "…my motivation will go sky-high if training shows us how we can change our approach when dealing with an autistic person" (PM2).

This idea that training could enhance their tailored care for autistic people was well supported by paediatricians, with a valuable suggestion to focus more on the hidden nature of their needs. Paediatricians claimed that although they may have knowledge on autism, especially on the identification and diagnosis of autism, they were keen to learn more on how they can adapt their approach, when dealing with autistic people. They agreed that this was never addressed in the training and the majority (n=8) considered this training need as their current priority. Their willingness to obtain such skills through training can be depicted in the words of PdF10:

> I feel that I have a knowledge deficit on autism, and this is affecting how I deal with them, I don't know how to best approach them. I believe this is the biggest gap…there isn't any training to understand autistic patients and how our approach should be modified.

(c) Understanding and responding to atypical behaviour

The unusual behaviour of autistic people was a common concern for the professionals. They agreed that managing their behaviour can be very challenging. There was strong support for training that helps them understand what underlies challenging behaviour and how to manage it.

Many teachers (n=8) described the atypical behaviours of autistic pupils as disruptive. They felt helpless in such situations, and admitted this increased their willingness to undertake training to obtain more knowledge to help them not only manage but also prevent such behaviours when possible. For example, one teacher said:

> If I had to choose an area…which I feel is really important is challenging behaviour in class, I always take a step back before I say or do something because I wouldn't know if this is something related to his condition or not…on the other hand, I know that unwanted behaviour which is not tackled will get worse probably (TM2).

Paediatricians' views about challenging behaviour focused more on "distressed" behaviour. Many of them (n=7) interpreted this behaviour as physical aggression, which they claimed they found very difficult to handle. Their main concern was that this behaviour usually hindered them from doing their job well. Thus, they agreed that this situation motivated them more to undertake training. PdF8 explained:

> I would be very interested to know more about the management of autistic patients…I can say that children who exhibit aberrant behaviour are my main motivators to attend training…same thing with my colleagues…

Similar to teachers and paediatricians, police (n=8) identified autistic people's atypical behaviour as:

> …a wake-up call, [that] something has to be done about it, because I think we are all somehow aware of the negative consequences when their behaviour is misunderstood (PM2).

Police gave examples such as when an autistic person becomes a suspect based on his or her deviant behaviour. They claimed that such misinterpretation often results in

an inappropriate approach towards autistic people. They agreed that this could only be addressed through relevant training that helped them to identify and understand such behaviour and learn how to respond to it. A common issue raised was how they could know that someone has autism because according to them: "…the most difficult task is to distinguish between someone who's playing up and someone whose behaviour is a result of autism" (PF7).

Theme 3: Concise – to take into consideration other commitments

The duration of the training was a common issue amongst all the groups. They emphasised that their motivation to engage in an autism training depended heavily on the length of the training provided. Participants decisively said that they would only consider going to autism training if it is not too long. This confirms the finding of the survey where 70% of respondents gave a high rating (between 6 and 10) to the factor "If it is not too time-consuming" which was likely to influence their decision to attend training (see Table 14 in Chapter 4). The interview data provided an important insight into the attitudes of the participants' preference for training to be concise. Participants emphasised that when training is presented to them, it has to take into consideration their other commitments. Many of the participants showed their frustration when the length of training does not respect this. The following quotes shed light on the participants' reasoning on this matter:

> It is very annoying when someone expects us to stop everything…to pause our personal lives, and just go for training…it is important that the training takes into consideration that we have other things so I believe that the best training on autism has to be short and focuses mainly on what we can do in the classroom (TM5).

> We don't have autism only on our mind…[so] training has to be short, including only the information that is needed for our work (PdF7).

> …it's (autism) not the main problem that we have but we need to accept that it is there amongst the others…so it (training) has to be short, to the point and covers the work the police do on a daily basis…this is what motivates me to go to training (PF9).

Many of the participants expressed their disinterest in lengthy class lectures on autism. For example, there was overwhelming support for the idea of having concise training sessions from the police. They remarked that to be effective, training has to take into consideration the nature of their work and their personalities. Police are very active people and being expected to stay seated listening to lectures was simply "repelling" (PF10).

The interview data about concise training might appear to clash with the survey findings which showed that the majority of participants chose a full day seminar as the most preferred training method for autism (see Table 13 in Chapter 4). The interview data showed that this choice could have been more of a convenient choice rather than based on its perceived effectiveness. The paediatricians and the police corroborated this view that a full day seminar would be the most feasible method. This was clearly expressed in the following two quotes:

> I think it's more for convenience (the preferred choice of one day seminar). So, if you have one full day you can go through everything in one day. It's concise, you just need one day off from work, I think it's more sort of easier to attend (PdF8).

> …if you manage to do it in one day it is much better than have it staggered…it will cause less trouble to our work schedule… (PM2).

However, participants admitted that a full day seminar would still not be the most attractive option, despite being feasible.

On the other hand, teachers were clearer about this from the very beginning. They said that they did not find a one full day seminar effective but they preferred training to be staggered on a number of days. This contradicts the findings of the survey where 41% of teachers preferred full-day seminar (see Table 13 in Chapter 4). The interviewed teachers did not believe that a full-day seminar would be the best learning method for autism. They said that they found it rather impossible to stay focused for 8 hours listening about the same subject. Many described such method as a "waste of time". A teacher claimed that:

> When I had something like this it was horrible, and if you ask me what did you get from it? I would tell you…nothing, simply nothing…sadness and nothing else (TM2).

Most teachers (n=7) were against *a one-off training*. They adopted the idea of a "spiral curriculum" (TM3) where a topic is revisited several times throughout the year, and suggested that it could apply well to autism training.

Holding training during working hours

A common suggestion was to have training during working hours. This agrees with the survey result where 75% of respondents chose training *during working hours* as their preference (See Table 14 in Chapter 4). Participants concurred that training scheduled during their normal work hours increases their motivation to attend, because it would not interfere with their other personal commitments.

The teachers and police described it as almost impossible to attend autism training after working hours. They said that they led a hectic life after work, which makes it very hard to participate in training:

> Training has to be during school hours because nowadays everybody is too busy and we are all living a chaotic life…so to be honest, it is not possible for me to do something after school hours, I would find it very difficult to go (TF7).

A police said: "…Don't expect us to do it after work…life is very hectic, you will hardly have time to look after yourself!" (PM1).

Paediatricians were less categorical in their arguments. Although they showed their preference for having their training during working hours, many (n=6) did not identify this issue as a clear stumbling block to their motivation. One paediatrician said:

> I know it's inconvenient for most of us to do it outside our regular work hours…but sometimes I'm afraid that we're using this as an excuse, rather than focus that this is part of our role and it has to be done…this lack of action from our side is paralysing our motivation (PdF8).

Theme 4: The use of incentives

Many of the participants across all groups (7 paediatricians; 7 teachers; 9 police) stated that incorporating training incentives would motivate them more to engage in autism training. A common argument was that since autism does not form an integral part of their daily work, and there are many more training topics, an incentive would increase their motivation. The survey showed that 35% of respondents identified other topics which they considered more useful to their daily practice as one of the frequent barriers to engage in autism training (See Table 18 in chapter 4). Thus, participants argued that

effective incentives could increase the likelihood of putting autism training more at the top of their training agenda. The main three incentives mentioned were: (i) earning points for their career development; (ii) obtaining a certificate of attendance and (iii) exemption from some of their work duties. None of the participants identifies financial incentives as a motivator.

A paediatrician suggested that a good incentive could be a system where the frequency of training attendance would become a requirement for their career development. He explained:

> I think people need something to guide them, you have to tick the box for the sake of the argument…I'm not saying you should use a stick all the time rather than a carrot, but unfortunately that's how it works (PdM2).

There was strong support among paediatricians for earning points for undertaking training, particularly their "CME (Continuous Medical Education) points" (PdF9). Paediatricians considered this point system as a very positive incentive because it allows for personal advancement in their career: "…since it's something that all of us desire there's more chance that we'll strive for it" (PdM3).

Another common incentive among paediatricians was obtaining a certificate upon completion of training. Nevertheless, the emphasis on the certificate of attendance did not feature clearly in the survey. Indeed, only 45% of paediatricians chose this as one of the main factors that could influence their decision to attend training (See Table 14 in Chapter 4). However, during interviews the majority of paediatricians explained that certificates have a strong message that their efforts to engage in training were being

appreciated. Moreover, it helps them to keep record of their own progress. A paediatrician said:

> …it appears a very small thing or perhaps useless but living in a world where appreciation is not very present, it has a great impact on our motivation to attend, because it shows appreciation for our commitment to learn more (PdF5).

On the other hand, teachers (n=6) and police (n=8) showed a preference for an exemption from some of their work duties, as an incentive. Participants in both groups argued that they would feel rewarded if some of their duties were taken away as a result of undertaking autism training. They emphasised that such incentive would increase their motivation to participate in training. Comments from two participants were as follows:

> I think that having an incentive plays a very important role…I'm not referring to money but for example your lesson load will be reduced…I think that is fair enough! (TM5).

> I honestly believe that they need to feel that they are getting something out of it. Let's face it, unfortunately humans are egoistic by nature and if they feel that they are not gaining anything they won't bother…with our daily work load it's impossible to consider autism training but if training would excuse us from other duties that's yes, very workable (PM4).

Theme 5: To do a better job

Participants in all groups mentioned that their motivation to engage in autism training came from their desire to do a better job, when dealing with autistic people. The majority of participants (7 paediatricians; 8 teachers; 8 police) acknowledged that their present lack of knowledge impedes them from responding appropriately to the

particular needs of autistic people (this will be further elaborated in the section below). Participants indicated that part of their motivation to learn more on autism came from their desire to “replace the trial-and-error approach” (TF6) or “guess work” (PM8) that they were currently adopting with autistic people. A teacher explained:

> I really hate this because although I have gained a lot of experience along the years, I still don’t know if what I did and am still doing is right or wrong…and this is very frustrating (TM2).

Thus, participants expressed their commitment to learn more on autism to enable them to offer a better service. This commitment was also depicted in the survey which showed that the majority of respondents (51%) were ready to commit between one to three days in the next two years for autism training (see Table 15 in Chapter 4). The interview data showed that underpinning this commitment was their willingness to do a better job.

Police said that their motivation to participate in autism training would increase if the provided training ensured that this could help them to do their policing roles and responsibilities better. A police said:

> …when you know that you are doing your job as you should be for example you know how to communicate with an autistic person, it’s very rewarding…and my work becomes easier as well (PF7).

Paediatricians raised a particular viewpoint about how their motivation to engage in autism training would be intensified. They explained how they regularly see a number of patients for various health issues (such as, asthma, epilepsy and gastrointestinal problems) and who are also autistic. They argued that having knowledge on autism

could affect their everyday work performance, something which they claimed was often overlooked by many paediatricians.

One particular pattern in the teachers' views was that although they shared their desire to become better teachers by knowing more on the learning styles of autistic pupils, in reality they still needed a *push* to engage in training. This motivational push can be explained in the words of the following two teachers:

> …while I'm talking to you, I'm realising…yes yes, I wish I can do something about it…I think that's it…we need someone to prompt us…because the thing is that we are aware of this need we cannot say we're not…but in concrete terms nothing is happening (TM2).

> …deep down I know that training would help me to become a better teacher…but this isn't enough, to be honest, no one encouraged me…at school no one ever told me or sent us anything on autism… (TM3).

No difference between males' and females' motivation

The interview data showed no difference between male and female participants' motivation to engage in training. This contradicts the survey findings which showed that the female respondents were more keen to participate in autism training than males (statistically significant relationship between engaging in training and gender: $p(0.008)<.05$). When discussed during the interview, participants said that their experience did not clearly indicate this association. Although the majority of the participants recognised that females' empathic nature could make them more sensitive to the needs of vulnerable people like autistic people, they insisted that this did not automatically motivate them more to engage in training. This view was more evident in paediatricians (n=8) and teachers (n=7) rather than police (n=3). Indeed, the majority

of female paediatricians and teachers were able to mention male colleagues who were equally interested to participate in autism training as they were.

On the other hand, police expressed a less categorical opinion. Both interviewed males and females raised a common theme that policemen had more “thick skin” and they had to live up to the tough macho image, which could affect their motivation to learn more on autism. One female police said:

> Sometimes I tell my male colleagues, as soon as you became a police, your heart disappeared from your body…because they focus only on their authority…females are more compassionate that males (PF7).

Professionals’ dissatisfaction with their level of autism knowledge

One common issue that emerged from all the groups was that underpinning their desire to do a better job was their dissatisfaction with the amount of knowledge they had on autism. The survey showed that the majority of the police (65%) and teacher (76%) respondents said that they felt that they were not adequately informed on autism. However, the survey showed a different view when it comes to paediatrician respondents, as most of them (48%) said that they felt well informed on autism (See Figure 3 in Chapter 4). Nevertheless, these divergent views (as portrayed in the survey) were not identified in the interview data. Indeed, participants from all the groups expressed dissatisfaction with their lack of autism knowledge. This dissatisfaction appeared to come from their expectations that they should know more on autism to be able to do their job well. Most of the participants identified their dissatisfaction as “an eye-opener” to motivate them to do something that helps them obtain more knowledge on autism.

Many teachers (n=7) shared their frustration about not having sufficient knowledge notwithstanding that they had autistic pupils in their class every year. The teachers' sentiment could be represented in TM2's metaphor when he said: "…this is like we are working on an engine but we don't know how to use the tools, how can we ever make it work?"

Teachers said that they felt embarrassed and dissatisfied that after four years at University they did not feel confident to have autistic students in their class. They were aware that their lack of knowledge on autism could have a negative impact on autistic students. They said that their lack of knowledge on the particular teaching styles appropriate for autistic pupils was impeding them from helping them reach their full potential. As TF7 put it:

> My biggest concern is that autistic pupils feel helpless at school, it seems like we are continuously sending the message that they are not capable of doing things like the other students…and even in circumstances where autistic students do not communicate this, I think that deep down they can sense this and this is awful, isn't it?…so yes we need a lot of help in this.

Teachers emphasised that they were motivated to attend autism training "to overcome the current problem of not reaching these children because of our lack of know-how" (TM5). Teachers expressed concern and guilt on thinking that autistic students could be having "a terrible experience at school" (TF9). They raised the point that their motivation to attend training came from their thinking that if they were more knowledgeable, they could make autistic pupils' school experience more positive. Some admitted that unfortunately this was not the current situation.

In a similar vein, police expressed their dissatisfaction that also appeared to emerge from their realisation that their lack of knowledge was impeding them from doing their job well. A common issue that was raised by police was that they were very unhappy with their response when it came to deal with autistic people. Most of the police's argument can be represented in the words of PF7 who stated: "our approach should be more professional and this can be only achieved through training".

Indeed, various participants shared a number of personal experiences when they felt very dissatisfied with how they tackled the situation involving an autistic person, due to their lack of knowledge. One police described a situation where he arrested a person and later discovered that he was autistic. PM1 described how:

> …I asked him for his ID card as he happened to be where a crime had just been committed and he refused…the law allows me to arrest a person if he refuses to give his ID card and that's what I did…then I got to know that this person was autistic and I felt horrible…

Paediatricians showed their concern that without autism knowledge, they could not understand autistic people. They were aware that since this was missing, it was very probable that the chances to respond well to their needs was low. For example, some paediatricians (n=3) voiced their dissatisfaction that the knowledge they had on autism was mainly on classic autism and this was limiting their work because as PdF4 said "…but life is not at all classical, it's only the tip of the iceberg". Thus, they expressed how this limitation motivated them to "…learn more on atypical autism because this will enable us to help more patients on the spectrum" (PdF8). Another example that was brought up by the majority of paediatricians (n=9) was their lack of knowledge about autistic girls, who as a result often go undiagnosed. They said that situations like these

motivated them to go to training because they believed that being more informed would stop the problem from being overlooked.

To enhance their supportive skills to parents

Parents of autistic children were seen as a motivator to engage in training only by paediatricians. Supporting parents formed an integral part of their job, and many admitted that due to their lack of training, very often they found themselves unable to support parents appropriately. Thus, behind their motivation to engage in training was their certitude that including this part in the training could enhance their supportive skills:

> I feel very responsible to know more on autism because I need to guide the parents…they would have a lot of questions and we need to guide them not just stopping at the diagnosis that's why I told you that it's very important for us to be aware of the available training (PdF10).

Many of the paediatricians (n=7) stated that they were constantly faced with a lot of questions on autism. They believed that this could be the result of having too much available information, which in some instances was inaccurate. Paediatricians found this quite challenging because very often they had to deal with several confusions that parents experienced. For example, PdM3 said that:

> …nowadays parents are reading a lot and sometimes everything they read they imagine it on their children…it seems that nowadays parents are too anxious that their child is autistic.

Paediatricians claimed that this situation put constant pressure on them to be well informed on autism. PdF9 said that she wanted to learn more on autism "to fight the

drawback of perhaps a sensational awareness in the media" of which parents are often a victim. They also noticed that nowadays parents seem to be "obsessed that their child is autistic" (PdM1). Given this situation PdM3 continued to say that "what I really need…if there's something (training) about this I would definitely go…is how to deal with parents' concerns on autism" (PdM3).

When talking about the existent support for parents that they were providing, most of the paediatricians agreed that this was not adequate. The breadth of suggestions recommended knowledge to communicate better with parents to help them understand more their child's condition, help them deal with anxieties which particular situations bring with them and to cope with the demands. For example, one of the paediatricians expressed his dissatisfaction about the existent communication style they were adopting with parents, particularly during diagnostic case conferences. PdM6 recounted:

> I really cannot stand that famous case conference…I have seen parents crying and broken…because you see all those people, some of them you never saw in your life, and they are all telling you your child is autistic, your child is delayed, your child needs an LSE…it's just horrible! I refuse to take part…I won't humiliate parents in that way…this is an area which we definitely need training in.

Predominantly, paediatricians expected that training addresses this knowledge gap of supporting parents, and thus they believed that this would increase their motivation to engage in training.

Theme 6: Useful methods in delivering training

When participants talked about what motivates them to engage in training on autism, a recurring theme was that training delivery had a significant impact on their motivation. This study indeed, intended to seek participants' views about what training delivery they enjoyed most and learned from. This section will shed more light on the most common aspects of delivery participants identified as the most effective methods of learning. Their preferences can be grouped into five categories: (i) Interactive teaching; (ii) Input by autistic people and their families; (iii) Delivered in an entertaining way; (iv) Preference for face-to-face rather than digital learning (v) Simulation-based learning and (vi) A physical environment that supports learning.

(i) Interactive teaching

One particular issue that emerged across all the groups was that they enjoyed an interactive method of learning most. They emphasised that they learn much more when they are actively involved in the learning process, rather than the traditional lecture-type. Participants agreed that when training adopts an interactive method, they understand more the content of what is being discussed. A comment made by most of the professionals was that training that uses an interactive learning method helps them to make more sense of the provided knowledge. This finding was corroborated in the survey in which the majority of respondents ranked 'discussion about the challenges they face' as the factor which was most likely to increase their motivation to participate in autism training (see Table 16 in chapter 4).

Teachers emphasised that interactive teaching would be the best option because they can make direct reference to the classroom situation and discuss real cases. One teacher said:

> …It's impossible that some problems that we currently face with autistic children in class are covered in the traditional training…but interactive learning can give us the chance to raise them ourselves, we who face the class situation day in day out (TM5).

A common argument put forward by most of the teachers was that they found it very contradictory that while their training promotes the use of interactive teaching in the classroom to stimulate an open discussion amongst students, unfortunately this method was not frequently adopted in their training.

Paediatricians also claimed that they favoured an interactive method of training because this kind of approach helped them to remember more. For example, PdF10 said:

> In my case I find case discussions as the most helpful, this format helps me to learn most when you focus on a case and you discuss the management of this case…it is easier to remember the main principles.

Police were of a similar opinion. They maintained that such a method gives them the opportunity to express their views and the real concerns that they face. Moreover, they believed that they can learn from others' shared experiences. They recalled a training on domestic violence and emphasised that one of the most important and enjoyable features it had was the sharing of the views of other co-workers. PM1 said that: "…it

helped us to build relationships with other colleagues…you learn a lot from each other and you feel you're not alone in this…".

Police claimed that they enjoyed interactive training most because they felt that it matched their learning style very well. They felt that since as persons they value action, this method gives them the opportunity to react there and then to what is being said. They stated that this method has the power to keep them engaged as opposed to the traditional style of training which "usually make us think about everything except on what we are listening to" (PF9). Their views can be represented in the words of PM2 who said:

> …the best [learning method] is when you can react immediately to what you are hearing…instantly…when you are active not passive, not like when you are in church and you just listen.

(ii) Input in the training from autistic people and their families

There was a clear consensus between all participants that the input of autistic people and their parents plays an essential role in the delivery of training. They emphasised that listening directly to personal experiences would be more engaging. Participants perceived autistic people and their families as a great source of knowledge. They were thus convinced that they could learn a great deal from their involvement.

Paediatricians argued that including people with lived experiences could have a tremendous effect on their learning. They claimed that personal stories were very effective because "they touch the heart more" (PdF7). Many of them admitted that since they are usually too medical, "…these real experiences would be a good

counterbalance" (PdF4) and would help them understand better the manifestations of the difficulties of autism in everyday life. They agreed that such real experiences could give you:

> irreplaceable insight… because getting something from someone who's experiencing it gives you more than just listening about the condition, but the impact this is having on them (PdF8).

However, paediatricians added that such personal stories would have to be corroborated with evidence, a point which was not mentioned by the other two groups. PdF4 said:

> I really appreciate it when things are explained in a simple way but you see that they're backed up by so much knowledge both academic and life experience…I find these very helpful, very humane, lived experiences but based on evidence…merged together.

Paediatricians said that listening to real experiences helped them "to learn more on the topic rather than just listen to a speaker who is knowledgeable in the area" (PdF10). However, they emphasised that the experiences of a multidisciplinary team were equally important to that of the autistic people and their families. Listening to one side of the experience was not considered very helpful. For example, PdF10 explained:

> …if there's only parents, I wouldn't be interested, not because it's not interesting but if there's nothing medical involved, I wouldn't be motivated to go.

The teachers claimed that they preferred to listen to autistic people's school experiences. TF7 described this information as: "…an invaluable source of information

because they would have been gone through the education system and I'm sure that they have a lot to teach us."

Teachers insisted that this feedback was currently missing and TM2 described this as "a missed learning opportunity". Although teachers showed their preference to this kind of training method, at the same time many of them (n=7) raised the concern that the majority of their colleagues "…still don't believe that our students can 'teach' us a lot about appropriate learning styles" (TM3). However, most of the teachers (n=9) pointed out an exception for autistic pupils as TF10 said: "…in the case of autism I would be very willing to hear them and I think even my colleagues because in this area we're always very lost". Teachers said that they were very eager to hear from autistic pupils themselves to get to know how effective their teaching methods were and what could be done to adjust their methods to accommodate their needs.

Police believed that including personal experiences of autistic adults and their families would be a very effective method to help them learn about autism. They argued that they were very keen about this method because it would compensate for their lack of experience in autism. This was also supported by the survey findings which showed that only 11% of the respondents said that they had met more than 20 autistic people in last three years (see Figure 2). One of the police described a personal experience of meeting an autistic adult who had a special interest in police work and he used to visit the police station every so often. She admitted that this was the best form of learning about autism. She argued that:

> …when you have the chance to talk to an autistic person, you understand more where the difficulties are…and talking about his experience will definitely help us to understand this condition more (PF10).

(iii) Delivered in an *"entertaining way"*

Participants from all the three groups emphasised that when they enjoy the training, understanding would be enhanced and retained more. An argument that was commonly made by participants was that the delivery of training by a "charismatic" person was as equally important as a knowledgeable person. Participants agreed that most of the offered training so far, lacked this fun element, and most of them remarked that this could explain the lethargy that existed amongst professionals to undertake training.

A common theme mentioned by both the paediatricians (n=6) and the teachers (n=5) was the importance of using humour. Participants in these two groups emphasised that including humour helped them to pay more attention to what was being said. One teacher said:

> I choose lectures that are entertaining…I can mention (the name of the lecturer), his lecture is like a stand-up comedy…and you come out from his lecture satisfied that you have learnt something and believe me I still remember most of the things that he said during the lectures (TM2).

Additionally, most of the paediatricians (n=6) made a reference to the distressing environment that they worked in and argued that given this context, "…humour will capture our attention more" (PdM3). Besides humour, teachers and paediatricians mentioned the use of media clips as one of the most important sources that helped them learn. This line of thought is represented in the following quotation:

> …if you had to show me visually, I find this very useful, if you had to show me a short clip of an eight- or nine-years old girl and how autism is affecting her life…that would be very helpful, much better than just telling me do this and that (PdF4).

Most of the police (n=8) said that for them training would be more appealing if it includes 'physical activity' in the form of role plays and games. They emphasised that such activity would help them to keep focused, as opposed to a lot of talking. For instance, when discussing autism one of the police said:

> If it's going to be a lecture…I can tell you that it's not going to work…after some time we will sleep…what we need is for example a role play on how to interact with them…what to do when faced with bizarre feelings of not understanding anything (PM6).

(iv) Preference to face-to-face rather than digital, on-line learning

Overall, participants expressed their main preference for face-to-face learning as a method that helped them learn most. However, although participants from across all the three groups agreed on this preference, there was an evident discrepancy in their degree of preference. Police's preference for face-to-face learning was very clear and unwavering. One the other hand, teachers and paediatricians were more aware of the benefits of digital learning and they did not exclude working more on themselves to get more used to digital learning opportunities.

Underpinning the police's steady preference for face-to-face training was their firm belief that human contact was an important element for them to learn. They claimed that they enjoyed more face-to-face training because "the live experience of being physically present is the best option to learn…I think I feel much more involved" (PM2).

Also, many of them said that their reluctance for online training was coming from their lack of confidence in technology use. PF10 said: “I’m not a very technological person so I prefer to attend training physically not online”.

Police’s views showed that they tended to gravitate more towards face-to-face learning because digital learning made them feel isolated. PM8 explained:

> …our work is dealing with people all the time. Although many find online training as a good means to learn, for me it’s not a good way!…talking to a screen, it puts me off especially when you are discussing a new subject like autism, you need that human support you know.

They also expressed a concern that digital learning limits the follow-up after training, which they thought was necessary to generalise what they would have learnt. Teachers and paediatricians shared quite a different view about this matter because despite their first preference for face-to-face, they showed more willingness to explore digital learning. The common reason behind both groups’ preference for face-to-face training was the class environment’s effect on their learning. For example, one teacher said:

> We love the class atmosphere…we are trained so much that learning could occur best in class and I think we still feel more comfortable to have our training in a familiar classroom setting…I believe this could help us learn more easily (TF4).

Paediatricians added that the class environment helped them concentrate harder when compared to the distractions that you can experience when you do it from home or work.

However, they said that they were getting more used to online training and that they were keen for more online training opportunities because they insisted they were still very scarce. They believed that this could solve the problem of finding a good time for everybody. The following two quotations represent the participants' willingness to make more use of digital learning:

> Something online would be very helpful…because you can do it at a time when it is good for you…and then perhaps you do an activity perhaps a quiz that helps you to remember more and this could solve the problem of finding a suitable time for everybody (TF10).

> …face-to-face can be more complex to set-up, there's a huge logistics problem, apart from being time-consuming…so I believe we need to start changing and make more use of digital learning (PdM1).

(v) Simulation-based learning

Participants in the three groups mentioned simulations as one of the learning methods they found enjoyable. They described it as a unique source that could increase their confidence and competence in the subject. The participants agreed that this method could be particularly appropriate for autism training. Many explained that autistic people's different thinking made them feel anxious, and responding appropriately to their needs on the spot was very unlikely. Many participants indeed, showed an interest in participating in further simulation-based learning and they expressed their disappointment that this method was predominantly lacking in their respective professions. They believed that simulation can present realistic scenarios that would make them more prepared for awkward situations in a supported environment.

Most of the paediatricians (n=8) believed that simulation could help them gain insight in autism more than any other teaching method. They argued that simulation could bridge the gap between principles obtained through knowledge and real-life and would thus, enable them to put theory into practice. One paediatrician argued:

> When you learn on autism it's one thing and when you deal with them in reality it's another…it seems that there is a gap here and to know how to transfer what you have learnt on autism in reality you need help, this could be achieved through training which provides real-life scenarios (PdF10).

Paediatricians insisted that they were not prepared enough to deal with autistic people, and they believed that preparation through simulation could help them develop their knowledge and skills whilst not exposing autistic patients to any unnecessary risks or harm. PdF9 said:

> …perhaps simulation training can address practical things such as understanding their difficulty to wait for a very long time in queues, how to prepare them and do the cannulas and things like these…I think that if these issues are tackled by providing a lifelike experience, we learn how to deal with them properly because in simulations you don't have that pressure of work and you can concentrate more.

Paediatricians claimed that their preference for simulation was due to their belief that learning can easily occur through practice. Many of them emphasised that this method facilitated long-term learning. For example, the words of PdF7 summarise the views of most of the paediatricians in this matter:

> …when training presents real situations, you can learn a lot…And you learn because it remains imprinted, sort of. Even the tips that they give you after. You really remember them much more than if I had to watch a lecture or read, much more definitely…

Police believed that simulation could be an effective way to teach them how to effectively engage with autistic people. They argued that simulations which offer scenarios that they are likely to encounter on the job would allow them to think in advance and practice how to best communicate with them. They emphasised that this method would be very suitable for them because as PM5 said:

> Simulation would solve the current problem of our inaction when meeting autistic people, because I personally always feel lost and it's like I freeze…but having these scenarios in training would encourage you to act because you're not scared to make mistakes…and the trainer can give you feedback.

Another police said:

> …as part of our work we have to act very fast, and when we notice something abnormal, suspicious behaviour our mind tends to go on illegalities…and only training can help us in autism because it has to prepare us…on the spur of the moment it's impossible to think about these things (PM1).

Indeed, a common argument put forward by police was that simulation training in a structured environment could help them recognise unusual behaviours which were very easy to misinterpret. One police said: "…for example if you didn't explain to me behaviours like stimming by literally showing me, I could have interpreted this as drug use or aggressiveness" (PF9). Participants believed that such method could help them to interact more safely and successfully with autistic people due its allowance to practice their actions.

Teachers also emphasised that simulation methods can have numerous benefits. However, as a group they were very clear that the effectiveness of such methods could

only be reached as long as genuine situations were used, rather than made up scenarios that did not represent everyday classroom situations. Similar to the other professionals, teachers argued that accommodating to autistic pupils' needs cannot happen without practice. For instance, TF6 explained:

> Handling a class of 23 students it's not easy then imagine you need to deal with a behaviour of an autistic pupil as well…during that time I can assure you that your brain cannot come up with what you can do…that's why we need practice…when we're calmer we can think better for sure.

Most of the teachers (n=7) said that for autism training, they would include the use of role-plays and observing real-life scenario on DVD. They felt that such techniques were very much needed because they are:

> …proactive and so it is very likely that [simulation methods] would prevent an unpleasant situation where for instance we would harm the autistic child's self-esteem perhaps without us even knowing (TF9).

Teachers agreed that simulation learning could be beneficial to notice their weaknesses and the impact of their decisions on the autistic pupil. They argued that this method would allow them "…to get a bird's-eye view which eventually helps [them] to reflect and improve [their] practice" (TM1).

(vi) A physical environment that supports learning

Most of the participants agreed that the physical environment where the training takes place has a significant effect on their learning. However, their views were divergent about what kind of physical environment would support their learning most. A common issue that both paediatricians and police mentioned was that learning was facilitated

more when a training activity took place outside their place of work. Strikingly, the majority of teachers said the contrary and emphasised that they believed that holding training at school would fulfil more their learning needs.

Paediatricians and police believed that training carried out outside their place of work would make their learning process markedly different from the one held in the same work environment. They said that a different environment could help them distract their attention from their everyday demands and focus more on the presented topic. Both groups argued that it would also enhance their motivation to engage in such training because they considered it as an exciting experience through which their attention and eagerness to learn could be enhanced.

The majority of the police (n=9) suggested that training should be carried out in a calm environment in contrast to their everyday work conditions, which were always characterised by continuous stressful events. The main common reasons that underpinned their preference for having training outside work were:

> you can divert your attention from your everyday work" (PM4); …you'll be more able to talk freely since you're not in the police building (PM8); your mind will be more at ease (PF9); …it's like you're going for an outing, not as if going to work as usual, automatically this helps you…going somewhere else could be a motivator in itself (PM5).

Although one police said that he would consider the Police Academy as a potential place to do the training, all police agreed that the police station was not suitable for training. Their arguments can be summarised in the following quotation:

> …but don't ever consider doing some kind of training in the police station because there's shouting, the telephone ringing, and a lot of movement and activity…so forget it (PF9).

Additionally, the majority of the paediatricians (n=7) emphasised the importance of including a social element in the training as well. They claimed that the latter had a direct positive impact on their motivation to participate in training. For example, PdM6 said:

> For me the social part is an essential ingredient, to be honest with you it's always something that I'm looking forward to…it makes it more interesting…it gives you the opportunity to chat with people, it's always the best time to talk about practical situations, informally during lunch…Without the social element, I think I'll lose interest.

Paediatricians remarked that once their training system of CME (Continuous Medical Education) changed its format and "the structure was becoming unfriendly for example they removed the food, I noticed that the attendance is always fading" (PdF9). This element of including food and drinks contradicts the findings of the survey which showed that only 7 paediatricians out of 29 respondents (24%) considered refreshments provided during training as a high factor which was likely to influence their decision to attend training (see Table 14 Chapter 4).

Conversely, the teachers were more conservative in their thinking and the majority (n=8) said that they felt more comfortable when training took place in the school environment, since such familiar environment facilitated their learning process. The majority said that the school environment made them feel safe and thus it was more likely to a elicit positive learning atmosphere. For example, TF4 said: "don't forget that

schools are very close to our hearts…so I think that it's the place where teachers prefer to learn".

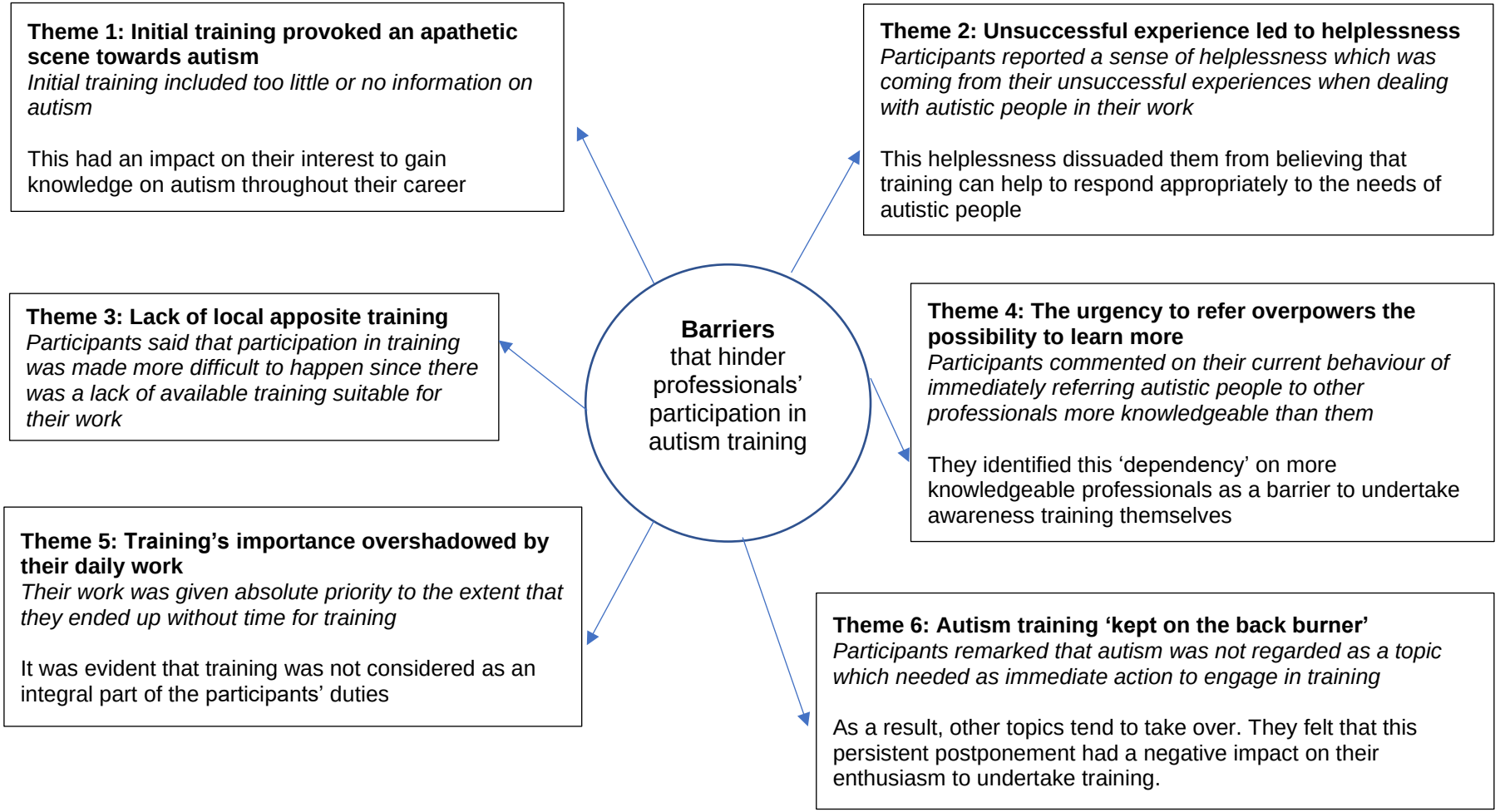
Also underlying teachers' preference for having their training in the school environment was its practicability. A common response was represented by TF6 who said:

> I think the ideal place for training is at school…it's more comfortable for us in terms of logistics and so on even maybe you can continue your lessons after training…because physically you're there, you don't have to miss all the lessons in a day.

5.5. Main barriers to engaging in autism training

Besides exploring what motivates professionals to attend training on autism, it is equally important to understand what is currently hindering them from participating in such training. Analysing the participants' viewpoints, the following six themes emerged: (i) Initial training was setting an apathetic scene; (ii) Previous unsuccessful experiences led to helplessness; (iii) Lack of appose local training; (iv) The urgency to refer overpowers the possibility to learn more; (v) Training's importance overshadowed by their daily work and (vi) Autism training 'kept on the backburner'. This section will delve deeper into the aforementioned themes to understand better what was currently holding participants back from attending autism training. Figure 5 below provides a visual representation of the main themes.

Figure 5. The six key themes drawn from the data about what barriers professionals identified to engage in autism training



Theme 1: Initial training provoked an apathetic scene towards autism

All participants across the three groups strongly expressed that their initial training provided too little or no information at all on autism. This is similar to the findings of the survey, where the majority of respondents (58%) said that their initial training did not provide adequate information on autism (see section 4.8 in Chapter 4). Going deeper into this finding, the interview participants explained that this situation was having an impact on their interest to continue learning on autism throughout their careers.

Many on the teachers (n=8) claimed that the only information provided in their initial training was on disabilities in general. However, they emphasised that this was not adequate to deal with autistic pupils in a classroom situation. All the teachers agreed that autism should be covered in separate training, insisting that the needs of autistic people vary from those with learning disabilities. Teachers expressed distress that they were not provided with good grounding prior to their teaching career commencement. One teacher said:

> …when it comes to autistic [pupils], there are cases where I almost have to forget what we have learnt at University, and I work more individually and always focus on the skills (TM3).

Teachers agreed that initial training had an important role "…to set the ball rolling and create an interest in autism" (TF4). They believed that this could be one of the reasons that could currently be blocking their initiative to learn more on autism. TF8 described this as: "…a fault in our system because our initial training should have prepared us more because these students are in class as well, it is our responsibility."

Two teachers interviewed who had a psychology background were more willing to learn on autism because their training introduced them more to autism. They acknowledged that their training background helped them to focus more on the pupils' needs rather than on covering the syllabus. One of them said:

> My background helped me to be sharper to take care of the needs of the person, rather than what is supposed to be done…and this helped me to be more interested on how I can help autistic pupils (TF7).

Police claimed that autism was totally absent from their initial training. They also believed that this absence could have affected their likelihood to continue learning on autism because there was never a good introduction. PM1 remarked that this absence "failed to create a sense of interest in this condition that requires particular training". This situation was described by PF10 as: "…starting off on the wrong foot" and as a result another police said that the risk was that "autism will remain unnoticed, given the amount of work that [we] have." (PM5).

Police remarked that their initial training was failing to give them that "spark" to create an interest in autism. They supported the idea that their initial training should set autism in motion. This idea could be understood more in the words of PM6 who said:

> For me the initial training should act as a teaser as well…now the fact that autism is totally absent from our initial training…you automatically think that this is not important for your job.

To stress the point, another police shared a personal experience and described how her interest in autism started when she met someone with autism during her work:

> I remember we had nothing on autism. I became aware of autism when I met a little boy with autism. It was then that I got to know about autism because this boy's mother explained briefly, and this sparked my interest (PF7).

Similar to teachers, police believed that to eliminate this barrier it had to start from the training of the new recruits, which they described as "getting the bull by its horn" (PF10). They argued that such action had the power of cultivating a culture of responsibility in every officer to obtain autism knowledge.

Interestingly, although paediatricians said that they were introduced to autism in their initial training, they still claimed that this was not enough to get a good grasp of the subject and to instil in them an interest in autism. Most of them identified the lack of importance given to autism, as a problem. PdM6 said:

> The system doesn't help…our Department does not promote autism as equally important as other subjects such as oncology, intensive care, cardiology…if all the areas are given the same amount of importance…this problem won't exist…however, autism is very side-lined.

Thus, like the participants in the other two groups paediatricians thought that this was having a negative impact on their willingness to attend autism training. PdM1 said: "…there should be a stronger dose of autism in our initial training because this might engage more paediatricians to have CPD on autism later on."

Contrary to teachers and police, some paediatricians (n=4) noticed that lately the situation was gradually improving and more input on autism had started to be included in the initial training. PdM2 said:

> Nowadays the situation is different, because at least now everybody has some exposure to autistic children because general paediatricians have secondments in the child development and assessment unit and they spend time there with the designated or appointed consultants…it's not a one off but they have a timetabled exposure…

Theme 2: Unsuccessful experiences led to helplessness

Participants described various circumstances when they felt unable to support autistic people appropriately. The shared experiences of these unsuccessful encounters showed that as a result, participants often felt helpless. A profound sense of helplessness pervaded and participants identified this as one of the main barriers to engage in autism training. They often believed that there was nothing else they could do to ameliorate the situation. Also, their views showed that this sense of helplessness spawned fear in most of the participants, to the extent that they often felt uncomfortable working with autistic people.

For example, a common theme expressed by most of the paediatricians (n=8) was their frustration when they did not manage to physically examine their autistic patients due to their behaviour. They also highlighted instances when they felt unable to communicate with them. PdF9 said:

> I'm going to be frank with you…I always feel a bit uneasy when I have an autistic patient…I think it is the fact the you cannot communicate with them, at least I find that very hard, and to understand how they are feeling, thinking…especially when I need to physically examine them.

As a result, this generated a feeling that "nothing more could have been done" (PdF5). Indeed, the majority of paediatricians (n=7) went on to say that they preferred working with children with cancers rather than autism because they believed that there were

more things that could be done to help cancer patients than autistic children. This argument showed that one of the contributing factors to their helplessness in autism stemmed from their belief of giving absolute priority to recovery. This is illustrated in the following two excerpts:

> It may sound shocking but for me, it is better to have malignancy in children because in malignancy there is a great chance that you'll recover, rather than autism because you will never recover! (PdM6)

> A tumour is going to be treated and go into remission and be cured, or go into relapse and treated again and maybe cured, and you have two years, five years of awful life and lots of problems and whatever. However, autism goes on and on sometimes when they get older, they get more problems and they can get more difficult. (PdM2).

Similarly, teachers emphasised that this sense of helplessness was created from their feeling that their attempts to successfully reach autistic pupils in class had often failed. For example, a PE teacher said:

> To be honest with you I always try my very best to include them in my lesson but most of the time I feel that I'm failing…I feel that I cannot reach out to these students and this feeling is terrible, because it is very sad to see a student on his own in the middle of a football match and nobody is passing the ball to him. (TM3).

Many (n=8) went on to say that even when they tried to intervene, this rarely had positive results. For example, a common issue raised was that their decisions usually backfired and they received a negative reaction from the non-autistic students. This worried teachers, that instead of helping they would be making lives harder for autistic students. Another teacher explained that:

> …sometimes I try to create certain conditions to help them so that the other children include them more. But I have to be very careful because I'm scared that then the other children would see autistic students in a bad light…you know these are the dilemmas that I usually face and believe me I still don't know what is the right thing to do… (TM2).

Teachers also said that they found it very difficult to adapt their lessons for autistic pupils especially those who had mild autism because they followed the mainstream syllabus. TM5 said *"*I don't know how to help them, I know it's not right but at the same time I don't know what I can do about it". They said that they try very hard but the fact that they rarely see results or a positive response from autistic pupils made them think that they were incapable of teaching autistic pupils.

Like paediatricians, teachers confessed that they usually felt very scared when they got to know that they would be having an autistic pupil in their class. The most common reasons were fear about how this was going to affect their class, they are perceived as too demanding, they feel unprepared and completely lost, and not in a position to help them. For example, one teacher said:

> I am scared because I don't feel well prepared for them unfortunately…before I do something with them I always question myself is this the right thing to do? and very often because of these doubts I end up doing nothing (TF4).

Many teachers (n=7) thought that this fear was coming from their feeling of helplessness. This was clearly explained by TF7:

> I think that autism scares people…I think that when we have an autistic student [in class], we feel helpless, that we don't know what to do with them…and that's why we are scared because we feel that we are not competent to teach these students…

One particular issue that was observed in the teachers' views was that they focused more on "controlling" autistic pupils rather than accommodating to their needs. Many of the teachers argued that this "controlling" style was not giving them positive results and they admitted that they were not aware of any other techniques which could be adopted in class to accommodate to the needs of autistic pupils.

On the other hand, although police said that they did not have enough experience dealing with autistic individuals, those who did have encounters said that they felt confused on how to act appropriately. PF7 said:

> It is hard to deal with autistics [people] and I think autism steals our vital tools…because we acquire a lot of information from the human behaviour, their eyes, faces, you know?…people with autism they don't make eye contact, facial expressions zero, you cannot get any information…it's like they are emotionless.

Police developed a mounting sense of helplessness as a result of a number of encounters with autistic people, which they considered beyond their control. Police admitted that in the face of unusual behaviour, they felt very incompetent. However, when compared to teachers and paediatricians, police remarked that they usually acted much less when they met autistic people, as a precaution not to make the situation worse. PF10 said:

> I would be very cautious if I get to know that the person I'm dealing with has autism… because of my lack of knowledge, I don't know how to approach them and in that case lack of action is better than doing something which makes the person very aggressive.

Police's views intimated that their sense of helplessness led them to escapism as well. It showed that in turn this consolidated the barrier to engage in autism training.

Theme 3: Lack of local autism training

There was unanimity that autism training availability was very limited in Malta. Interview participants from across the three groups emphasised that their willingness to attend training was being blocked by the lack of suitable autism training available. This could shed light on the discrepancy found in the survey in which the absolute majority of the respondents (n=155; 96%) stated that they were willing to dedicate time for autism training. However, from the same respondents, only 24 (15%) had attended a learning activity on autism in the last three years. The interview data showed a clear consensus that it would be useless to have professionals willing to learn more on autism but no available means are in place to obtain such knowledge. The following three excerpts represent the views of participants in each group:

> I am very interested to learn more on autism, because I take care of children with problems related to nutrition, and I feel that I cannot do much and I think this comes from my lack of knowledge but where am I going to turn to?…unfortunately, training in Malta is very limited, not to say completely inexistent or else if there is something I'm not aware of it (PdF9)

> …although locally awareness is increasing, concrete ways to help us learn about this subject are still not in place…we have practically no training opportunities, you know and that is a problem (PM7)

> Courses, lectures, talks on autism are totally non-existent…at least I never came across something about autism…if these are not being offered, the message is that we do not need such information…which is really not the case, because I wish I can learn more on autism but I feel this wish is shuttered by this unavailability (TM2).

Paediatricians raised the issue that their wish to learn more on autism compelled them to look at training abroad, where they remarked that the situation was completely different, with much more training opportunities available. Although many paediatricians said that they often considered attending training abroad, they emphasised that this was not feasible. Some argued that since Malta is a very small country, it is expected that it lacks specific training opportunities, but this was not an opinion shared by all. Indeed, most of the paediatricians (n=7) disagreed with this argument and said that the size of the country should make it easier. For example, PdF10 said:

> …in our case you can easily organise something for all the paediatricians in Malta, since the numbers are not big, so in one attempt you can reach everyone.

Underlying this lack of available autism training, paediatricians said, could be the lack of strong links with any pharmaceutical industry. PdF8 said:

> The drawback of autism is that till now there aren't any drugs that target the problems of autism…not like pharmaceutical companies that has medication for asthma for example, and I believe that this could affect the amount of training organised on autism.

Paediatricians also raised the issue that the only available training required physical attendance. Some of the participants (n=3) suggested that there should be more focus on "online training [which] could solve the current problem of not having enough autism training available" (PdF9).

While the data showed that paediatricians were more willing to take a personal initiative to search for suitable training for them, this was not evident in the teachers and police groups. Although they agreed that the main barrier for not attending autism training was the lack of available training, they placed the blame on their profession for not organising enough training. Their views can be summarised in the following two excerpts by a policeman and a teacher respectively:

> I never attended something about autism…to be fair the Corp has to send you for training and there was never something on autism…I found autism very interesting and I'm willing to learn more but in my opinion the Corp is not providing us any opportunities (PF7).

> …sometimes I feel that our department doesn't regard autism as central in the training provided because we rarely have good training on autism (TM1).

When asked about training beyond that organised by their professions, both groups emphasised that "this is practically inexistent" (TF6). They said that according to their knowledge, training was not even provided by the private sector or the Non-Governmental Organisations (NGOs) which work in the field of autism.

Many of the police (n=6) argued that underpinning the Corp's reluctance to organise autism training was the current system that did not allow to record the cases of autism that they encountered, contrary to what was done with other cases. This situation was clearly explained by PM2:

> …we base our work on statistics, even in training the Corp usually decides to provide training on the 10 most frequent cases that we have…so the first thing that needs to be done is to train the police to recognise autism and include autism in our system, so that these cases can be recorded too.

Another issue raised by many of the police (n=8) was the role of the media in influencing the importance of having police well-informed on autism. They argued that "the media rarely features the role of the police in supporting autistic citizens" (PM6). They compared this to domestic violence which they admitted was highly exposed in the media and "…it makes a lot of noise and that puts a lot of pressure on us to learn more…this is how it works" (PF10).

A particular concern raised by teachers was that the very few available autism training, was not useful for them. They believed that this had an impact on their willingness to participate. For example, a teacher who had attended a training session on autism (10 years ago) said that he never attended again because it was a negative experience in the sense, that he did not find it effective. He described the autism training he undertook so far as: "…a waste of time because I expected to get something tangible, something that I could use in class." (TM1).

Teachers argued that the current available training was not addressing their real needs and this made the situation worse because as explained by TF8: "…the situation is desperate because we cannot refer anywhere and my fear is that our interest will dwindle".

Teachers also raised the issue that autism training was very lacking in Malta because the trend was to focus solely on teaching their subject rather that acquiring more knowledge on the different learning styles that pupils in class might have. Teachers agreed that more training was needed to be provided to help them go beyond teaching their subject. TF10 said that:

> …if our department understands that we need more help to understand pupils who think differently for example autistic pupils, I'm sure that more training courses will be organised…so far this is still very missing unfortunately and we are bombarded on our subject.

Theme 4: The urgency to refer overpowers the possibility to learn more

An identified common pattern amongst all professions was their urgency to refer an autistic person they encountered to someone more competent in autism, rather than attempt to learn more themselves. Although many of the participants expressed their wish to learn more on autism, when they came to their everyday practice, such wish was overcome by a pressure for swift action. Participants said that they found such technique helpful because it would instantly 'solve' their problem. In turn, this could automatically reduce the need to learn more.

Paediatricians argued that nowadays most of the paediatricians have their specialities. They claimed that:

> …before everybody was a generalist, seeing leukaemia patients, cardiac patients, autistic patients and so on…nowadays, [they] have sub specialities including community paediatricians for children who have autism (PdM2).

Although they could see this as a good thing, many of them were aware of the downside of this progress, in relation to their motivation to undertake training on other topics, which were not directly linked to their specialisation. Indeed, they admitted that their interest in the latter would be reduced drastically. Participants said they had their minds at rest when they came across a situation, not related to their specialisation because they could refer to their colleagues:

> …in reality this is what happens in every department…and I'm sure when it comes to training all the money will be allocated to their respective areas, I'm sure that they don't have autism on their training agenda! (PM1).

Paediatricians claimed that this growing culture of specialisation had a specific impact on autism by blocking their interest to learn more on autism. PdM2 explained paediatricians' behaviour by using the metaphor of Pontius Pilate's action. He said:

> I wash my hands because I can shrug them off…and when it comes to go to seminars or to post graduate courses and training, I choose my own speciality, and not take a day off to go and listen to an autistic seminar because there are my colleagues…when I see training related to autism I just send it to my colleagues.

Interestingly, many paediatricians (n=7) also noticed that this culture was instilling in them a sense of fear to support autistic people.

> I believe that once someone is presenting something which exceeds your limit, then it 's not yours, and I think autism is one of them (PdM3).

> I think that other medical conditions we know how to tackle, but autism, it's like there's a doubt, we always need to refer, that's why, it seems we always stay out of it…it's like it's no longer our problem, if there's a question mark, there's a concern…we just refer. (PdF5).

Another argument put forward by many of the paediatricians (n=6) was that they regarded their role in autism as very limited. This also contributed to their reasoning for immediately referring autistic people instead of taking action and enhancing their knowledge. They argued that since they did not have a cure for autism, it made them less eager to learn about it. For example, PdF7 said:

> ... maybe the topic is not a favourite topic, because I don't know, you don't treat A and the result is B…so I think as a topic, it can be a bit disheartening…I think deep down as a condition it doesn't give you that satisfaction maybe…that sort of it's not something like ah yes, let me go and learn about that, I'm curious.

Indeed, one paediatrician said that first and foremost autism training needed to address this problem that exists amongst many paediatricians who were "obsessed" with cure which was naturally blocking their interest to learn more on autism. She explained that "Training has to help paediatricians how to redefine 'cure'" (PdF4), and encourage them to believe more in their input, which would hopefully increase their interest to learn how they could support autistic people more. She gave very good examples on how paediatricians can see success in the following quotation:

> …we have to become more aware of the achievements….even if he didn't eat anything and now he's starting to eat something, that is success! He was totally isolated and now he's managing to make some eye-contact, that is success! …that rigid girl who poor girl we thought she had nothing but then we got to know she has autism, we start making sense of her behaviour, that is success! These…we must make this success and feel we have achieved as much as if we dealt with a bad asthma attack or we managed to cure a meningitis (PdF4).

This issue of referring rather than trying to do something to learn how to deal with autistic people was also raised by police. They argued that the culture of referring to your superior was standard in the work of police. PM1 explained: "We have a lot of ranks, and when you see that something is beyond your limit, then you turn to your superior, that's the system".

Many of the police (n=9) said that as soon as they meet someone with autism, they immediately realise that something is beyond them so they refer to their superior.

However, they recognised that with regards to autism, going up the ranks was not a solution because even people at the very top were not informed on how to deal with autistic people. Yet again instead of tackling the issue internally by considering training, their action would be referring to someone else. This thinking is represented in the following two excerpts:

> When we're working on a case and we notice that someone isn't within our competence, like in the case of autism, we prefer to ask someone, who is knowledgeable to deal with them. Generally, we immediately refer them to the Health Centres to assist us (PF10)

> We usually ask for an ambulance and medical staff when we see someone like this (autistic person), because we are obviously not trained to deal with such people (PM4).

However, one police challenged this thinking and described their current practice of immediate referral as: "…we're just beating our head against the wall" (PM5). However, he believed that it was good to have a point of reference, someone who could support them because they were not experts in autism. This policeman went on to say:

> …my concern is that we have to be prepared to act instantly when dealing with an autistic person…so only training has to give us this, you have to invest in police to help them act there and then on the situation that they encounter, then you can refer but first you need to know how to do something (PM5).

In the case of the teachers, the identified pattern was a tendency to rely on the LSEs responsible for autistic pupils. Although they all insisted that autistic children were part of the class and they belonged to the teacher rather than their LSE, they admitted that having an LSE in class sometimes impeded them from taking the initiative to attend

autism training. The words of participant TF7 summarised the views expressed by most of the teachers:

> …I believe that when the teacher gets to know that the autistic pupil will be having an LSE, this would stop them from feeling responsible to learn more on autism themselves.

When sharing this thought teachers said that it was very likely that they did this unconsciously. It seemed that they rest their minds that there was someone knowledgeable on autism in class and so that they could focus on other things. Thus, they did not consider undertaking autism training themselves.

Nevertheless, their views also showed that there were instances that this atmosphere was created by the LSEs themselves. Indeed, some teachers (n=4) said that the LSEs had “absolute power” on how to guide autistic pupils and many (n=8) described them as “…a dominant figure when you have an autistic child in class” (TF7). One teacher said:

> I feel that I need to know how to interact, how best to teach this boy [with autism] so that he feels comfortable in class…but unfortunately most of the time, they (LSEs) take over (TF7).

Most teachers (n=8) confessed that there were instances when they felt that this immediate insistence to refer these autistic pupils to their LSE was ‘forced’ on them. In turn, they claimed that these instances acted as a barrier to continue learning on autism because as TF8 put it:

> …it kills every initiative to go to autism training, because this makes us think that our role as class teachers is very limited when it comes to autistic kids, which is not the case.

Theme 5: Importance of training is overshadowed by their daily work

The participants in the three groups claimed that very often training in general was interrupted by giving absolute priority to their daily work. Their views clearly showed that they were totally committed to do all the duties their jobs entailed, to the extent of ending up without time for training. Strikingly, the majority of the participants (6 Paediatricians; 8 teachers; 8 police) did not consider training as an integral part of their duties. Indeed, the majority of respondents in the survey (59%) said that they had not participated in training on any topic in the past three years. This culture towards training in general was identified as a significant barrier for participants to engage in training on autism. The survey showed that in the past three years, 85% of the respondents did not engage in any autism training (see chapter 4 section 4.10).

All the police interviewed observed a phenomenon that throughout the years, all the training they used to have and considered useful, was either discontinued or its quality deteriorated. A common reason given for this was that their work always took over and they said that sometimes it was impossible to keep up with the training commitments as their work was always increasing. PM2 remarked that:

> …it seems that there's always something interfering, now we have Covid for instance, before this we had the political crisis …you know and when our work intensifies a bit the first thing to go is training.

They emphasised that unfortunately this attitude towards training still existed. The majority made reference to the new training system that was just commencing in policing. Although more importance was being given to training because the new system was more intensive consisting of two weeks of training, they felt that training did not have the importance that it deserved. For example, PM1 said:

> …but yet again as soon as we encounter the first hurdle, even this new training system was interrupted, for example last year training was immediately halted when we faced that political crisis because we had a lot of protests in the streets…you know what I mean, deep down we still look at training as something extra (PM1).

Indeed, police expressed their concern that although lately the training system started to change, the attitude towards training remained the same. They said that unless there was a change in the attitude, training would continue to be jeopardised, especially topics like autism which were not directly related to their work.

Similarly, paediatricians also expressed their concern that they were more focused on their work rather than training. They said that in Malta, paediatricians tended to be overloaded with a lot of work, which decreased the chance for effective training to take place. PdM3 said:

> …when we have worked for 13 hours in a day, you won t have time left for training…we end up very tired working all those hours for six consecutive days…on a busy day I see around 60 to 70 patients, can you imagine where I can put training on autism?

They believed that their attitude towards continuous training was influenced by the Government's promotion to prioritise their work with patients. As PdM6 explained: "we

are continuously pressured from the top to see more patients and obviously to reduce the waiting lists as much as possible" rather than encouraging them to improve their knowledge. Paediatricians also remarked that the current system did not encourage them to undertake training. Many of them (n=7) vent their anger that although they could take study leave to undertake training,

> …sometimes the system is awkward, and to apply for study leave, usually they give you a hard time…I think the system should be more considerate, should facilitate our participation in training, rather the other way round (PdM2).

Almost all the paediatricians (n=9) made reference to other countries and they expressed their dissatisfaction about not having enough time for training. Indeed, they remarked that unlike most countries they did not have specified time dedicated for training. PdF7 shared her experience about her links with foreign colleagues and said that:

> I form part of Young European Academy of Paediatrics and we have meetings online with different representatives of different countries and from the gist that I get sometimes, they have more space for training and research....and sometimes they are doing only research for some time. In Malta I don't know if we can ever do that...we're not doing it… I feel training and research are not a priority yet.

A number of paediatricians (n=6, those with a good number of years of work experience) promoted the idea that they preferred to learn from experience rather than training. They said that their knowledge on autism was obtained mainly from seeing these children in their clinics. However, this idea was not supported by those paediatricians with less work experience who believed that training could be the best source to get the right information and this could not be substituted by just experience.

Also, those who worked more directly with autistic children were very sceptical that experience can replace training.

Teachers focused more on their working conditions which did not allow them enough time for training. They raised the issue that the syllabus was too demanding and they were on constant pressure to cover everything in time. They claimed that this pressure acted as a barrier to consider undertaking training because it took all their mental energy. Indeed, all the teachers said that their absolute priority was to finish the syllabus. Indeed, a common response from the teachers was that they were not "…ready to miss any lesson to go for training…" (TF6). TM2 said:

> …not because I'm not interested but I have never given it a thought [to go to autism training] and as I am talking about it with you, I 'm realising this, you know, the amount of work that we have to do won't even allow us to consider training.

Indeed, teachers suggested that this problem could be overcome if the syllabus was not that much elaborated and left them more time for training. Ironically, teachers said that they were constantly bombarded with too many courses that they could follow. However, they insisted that training could only be considered if the workload was decreased. TF9 said:

> They (Institute for further Education) always send us information on a lot of courses…I receive a lot of emails every day and I end up deleting everything at once…without even reading them!

Theme 6: Autism training is 'kept on the back burner'

A common theme that emerged from the three groups was that they did not consider autism as a topic which needed immediate action for training. Although they were aware of their training needs (as previously described in the motivation section), their decision to undertake actual training on autism was continuously deferred because other topics tended to take over. Participants observed that this situation could be one of the barriers that was currently holding them back from taking autism training. They felt that this persistent postponement threw cold water on their enthusiasm, and as a result their initiative to undertake autism training will never take place.

Paediatricians said that one contributing factor for this postponement was their area of interest, which usually took over and they "basically run out of time" (PdM2). They argued that although they were aware of other training needs, including autism, very often their only preference would still be their area of specialisation. The views of most of the paediatricians are represented in the following quote:

> …I can't say that autism is not part of my training plan…but since we tend to give priority to other areas, we can fall victims to procrastination, which has the power to halt our decision to attend autism training (PdF7).

However, one paediatrician insisted that this procrastination was not the result of lack of time, but from not seeing clearly the connection between being more knowledgeable on autism and providing more appropriate care to autistic people. This paediatrician said:

> I think the issue here is not time…it is true that you are mainly focused on your area but as such, if we have to learn about something else which we

> consider useful to our work we'll manage to make the time for it…so [time] is not the issue…the issue is seeing the relevancy of autism in our work (PdF5).

Many of the paediatricians (n=5) argued that another reason for their constant postponement of autism training was that compared to other topics, autism was not very intriguing as a subject. A common reason underlying this lack of interest was mainly because they could not see a cure for autism, as previously mentioned in Theme 4. Another reason given by many paediatricians (n=6) was that this was something beyond their control, as a result of human nature. The following quote can explain this further:

> …the oncology patients attract human difficulty with interest to spare and the autistic child does not. Don't tell me what it is but it's human nature. You'll not feel the same kind of empathy…so these subjects will take over and autism might remain at the very bottom of your training list (PdM2).

Moreover, since most of the paediatricians were keeping autism training 'on the back burner' this was also interpreted as lack of interest in autism from those who organised training on autism. Indeed, one of the interviewed paediatricians who was also involved in the organisation of CME lectures on autism vented out his frustration for the lack of attendance for these lectures. As a result, he stopped being involved in these lectures "because there was such lack of interest which I couldn't take anymore and yes even me, I lost interest…" (PdM6). This was a worrying situation as expressed by this paediatrician who said that:

> Consultants do not come (to autism training) because they think they know it all, and these are the same people who see autistic patients in their private clinics and they tell them no that's not autism, he'll grow out of this or that's

> because he's spoiled!…unfortunately some paediatricians promote the denial in parents… I feel very frustrated about this (PdM6).

Thus, this barrier could also be contributing to the other barrier mentioned earlier, that of not having enough available training on autism (Theme 3). Indeed, a vicious circle could be observed because the paediatricians' procrastination to engage in training was interpreted by those organising training as a sign of no interest and at the same such reluctance continued to materialise, as in reality there was no available training.

Many of the paediatricians (n=7) expressed their concern that this barrier was having a negative effect on their everyday practice. They explained that having very knowledgeable specialists on their subject would only have a negative impact on autistic patients. PdF8 explained:

> …the oncologist is not only going to be seeing brain tumours or leukaemia patients, because some of them will be autistic as well…they should know what to do…so it has to be part of the portfolio…so not eliminating this barrier would be a disservice for autistic patients.

Police said that they kept autism training on the back burner because they admitted that they were still unsure whether autism was part of their job. Indeed, some police (n=4) expressed a dilemma whether to choose autism training or go for something which was more clearly related to their job. Police said that this dilemma was delaying their initiative to participate in training on autism, and the end result would be choosing those subjects which they thought were more relevant for their everyday work. The following two quotations represent the views of these police:

> To tell you the truth it (autism) is not a topic that ever struck me…I still don't know if such training is necessary for us…but if I had to do something I would go for criminology for instance or domestic violence I see them more important for our work…I would keep autism more aside for now (PM6).

> I wouldn't say that autism is not on my agenda because I am aware of the need to be informed but I'm afraid that other things get in the way and perhaps I give them more importance because they seem more directly related to our work (PF9)

Contributing to this dilemma was a common issue raised by the majority of police (n=8) who associated autism with children only and in turn, argued that since they did not have a lot of contact with children, they assumed that training was not a priority. For example, PF10 said:

> …when I hear autism, children come to my mind I don't know why but as from today, following this interview I will be more on the lookout for adults, you see we need something to make us aware!

Most of the police (n=8) said that autism was still something very new to them, and their views confirmed that they were not aware of autistic adults in society. One police raised the issue that the continuous postponement to attend autism training was coming from their resistance for something new. She compared autism with the introduction of the concept of community policing which was recently piloted in Malta. She said:

> …when we lately introduced community policing at first unfortunately there was a lot of apathy because it was something completely new, because you take them out of their comfort zone, which is a big change for the police (PF7).

Another reason for postponing autism training, brought up by some of the police (n=4) was the clash between the topic of autism and the nature of police work. They claimed that policing required to build “a tough image to cope with all the challenging demands” (PF7) and as a result this could make them less sensitive to the needs of vulnerable people like those with autism. The implications of this image was clearly explained in the words of PF9 who said:

> …yes that image might hinder us from showing our emotions and as result we don’t bother to go to training on something like this because our main aim would be to fight criminality…and you have to live up to that image because if you show that you’re soft, your friends will ridicule you.

Teachers argued that the one of the contributing factors for postponing their decision to take autism training was the ongoing changes in the education system, which always took priority. The teachers identified this instability in the system as one of the main drawbacks that pushed autism towards the very bottom of their training agenda.

Teachers also said that the small number of autistic pupils that they encountered could also be contributing to a lack of immediate action to learn more on autism. This reasoning is represented in the words of TM3 who said:

> Look, I’m going to be very direct…perhaps we don’t give it [autism training] that much of urgent importance. For instance, this year I’m only teaching two autistic pupils, who are very mild. So, for example at the moment I can say I can do without training.

Some teachers (n=5) raised the issue that past negative experiences of autism training (as previously mentioned in Theme 3) had an impact on their eagerness to keep on attending. They argued that they were postponing their decision to take training on

autism because they were aware that the current available ones were not effective and they admitted that they were “eagerly waiting for something really good to come out” (TM2).

To eliminate the difficulty of procrastination to undertake autism training both the teachers and the police suggested that mandatory training could be one possible solution. They argued that making it mandatory would send a strong message that autism training is needed. The underlying reasoning can be represented in the words of one police who said that:

> I believe that if the mountain will not come to Mohammed, Mohammed will go to the mountain, the introduction of mandatory autism training will be a step in the right direction…a change in culture and approach (PM3).

However, this view was contradicted by paediatricians who did not agree that mandatory training could be a good solution to fight procrastination. They argued that compelling adults to engage in training which they do not perceive as useful would not be an effective way to learn on autism. Paediatricians believed that mandated training could only serve as a requirement to be fulfilled and thus, would make it less impactful.

5.6. Summary of the key findings

This chapter has reported and explored in depth the dominant themes. The main themes in response to participants’ motivation to engage in autism training are briefly described in this section.

Table 22. Differences and similarities between the professional groups

Topic	Similarities	Differences
Training during working hours	**Teachers** and **police** described it as almost impossible to attend autism training during working hours	**Paediatricians** were less categorical in their arguments. They were keener to consider training after working hours
The need of incentives	**Teachers** and **police** showed a preference for an exemption from some of their work duties	**Paediatricians** preferred career advancement
Skills to support parents	**Teacher** and **police** did not make any reference to parents as a motivator to learn more on autism	**Paediatricians'** motivation was particularly linked to their desire to enhance their supportive skills to parents
Face-to-face learning	Although **teachers** and **paediatricians** preferred face-to-face learning, they were more aware of the benefits of digital learning and more likely to take this up and learn by themselves	**Police's** preference for face-to-face learning was very clear and unwavering and it was likely that they would not consider digital learning opportunities.
Physical environment for learning	**Paediatricians** and **police** felt that learning outside their working environment was preferable to training on site	**Teachers** were of an opposite opinion, and they emphasised that holding training at school would fulfil their learning needs better
Initial training	**Teachers** reported that they had information on disabilities in general rather that autism per se. **Police** said that autism was totally absent from their initial training	**Paediatricians** said that they were introduced to autism in their initial training but they emphasised that this was not enough to instil in them an interest in autism. Contrary to teachers and police, some paediatricians noticed that lately the situation was gradually changing and more input on autism had started to be included in the initial training
Importance of information to support autistic people	The majority of **teachers** (76%) and **police** (65%) in the survey did not feel adequately informed to support autistic people	Almost half of the **paediatricians** who responded to the survey thought that they were adequately informed to support autistic people. This view was contradicted in the interviews where they expressed their concerns about their lack of autism knowledge
Intensity of training	**Paediatricians** and **police** were more inclined to participate in a one-off session	**Teachers** preferred staggered sessions that would revisit the key issues (the idea of a spiral curriculum)

Table 22 includes a summary of the findings from the survey and the interviews from the specific professional groups for ease of access for the reader to revisit similarities and differences between the three professional groups on the emerged results.

Participants unanimously agreed that they were more motivated to participate in autism training when it included a practical element rather than being purely theoretical. Sharing success stories was considered as the most powerful tool to enhance practice. Participants were more inclined to customised training and their motivation to attend training increased when the latter was tailored to their specific roles. They felt that general training was not effective. Their motivation was directly linked to how relevant it was to their particular work.

Despite their different roles, participants identified three common training topics namely, (i) Effective communication and interaction; (ii) How to tailor their care and (iii) Understanding and responding to atypical behaviour. Participants emphasised that they were more motivated to participate in training when this is short and focused. They said that their motivation was enhanced because such training takes into consideration their other commitments. Indeed, a common suggestion was to hold training during working hours. As outlined in Table 22, this was particularly emphasised by teachers and police, which implies that when considering training for these two professions, one of the prerequisites should be to organise it during working hours. Incorporating training incentives would also motivate participants. The three most common incentives were (i) earning points for career development; (ii) obtaining a certificate of attendance and (iii) exemption from some of their duties. None of the participants mentioned that their motivation was affected by financial incentives. However, once

again teachers and police agreed on being exempted from some of their work duties, which compliments their suggestion for training to be held during work hours (See Table 22).

Participants remarked that underpinning their motivation to undertake autism training was their desire to do a better job. They were aware of their lack of knowledge which in turn impedes them from doing a good job when dealing with autistic people. They found this very disturbing and thus motivated them to learn more on autism. Paediatricians said that their desire to enhance their supportive skills to parents was one of the main motivators to engage in training. Participants also gave importance to the methods used in delivering training. Their preferences which were likely to increase their motivation can be grouped into five categories. (i) They preferred to be actively involved in the learning process rather than participating in a traditional lecture type (interactive teaching); (ii) Input from autistic people and their families would be more engaging and impactful; (iii) if delivered in an entertaining way, this would help them to remember the content more; (iv) face-to-face learning was their preference, although teachers and paediatricians were more willing to explore digital learning; (v) simulation based learning was considered as a way that might increase their confidence and competence; and (vi) the physical environment also plays a significant role in learning. While paediatricians and police preferred training to be held away from their place of work which would help them to focus more, teachers preferred training to be held at school (See Table 22). This suggests that alternative premises which provide a different and perhaps more relaxed atmosphere than the clinical one experienced by paediatricians and the police academy, need to be considered for the training of paediatricians and police.

The key barriers to engage in autism training were grouped into six themes. Participants said that since their initial training included too little or no information on autism, this was setting up an apathetic atmosphere, which had an impact on their interest to gain knowledge on autism throughout their career. This was particularly emphasised by the police and the teachers (See Table 22). Participants also reported a sense of helplessness which came from their unsuccessful experience when dealing with autistic people in their work. This helplessness dissuaded them from believing that training can help to respond appropriately to the needs of autistic people. Participants also said that participation in training was made more difficult since there was a lack of available training suitable for their work. Additionally, participants commented on their current behaviour of immediately referring autistic people to other professionals who were more knowledgeable than them. They identified this dependency as a barrier to undertake autism training themselves. Another common barrier across all participants was that training's importance was overshadowed by their daily work. The latter was given absolute priority to the extent that they ended up without time for training. It was evident that training was not considered as an integral part of the participants' duties. Participants also remarked that autism was not regarded as a topic which needed immediate action to engage in training. As a result, other topics tended to take over. They felt that this persistent postponement had a negative impact on their enthusiasm to undertake training.

The data collected was overwhelmingly positive. It clearly shows that participants were keen to share their thoughts and experiences. This research provided them a medium through which they could voice their thoughts, ideas and suggestions on how they see autism training and what could be done to obtain more knowledge through such

training. The next chapter will consider these findings in the light of the reviewed literature.

CHAPTER 6
DISCUSSION OF THE FINDINGS

6.1. Introduction

The main aim of this study was to listen to the voices of three groups of professionals about their participation in autism training. The three main research questions were:

(i) What motivates paediatricians, mainstream secondary school teachers and police officers in Malta to attend training on autism?

(ii) What form of delivery do they most enjoy and learn from?

(iii) What deters paediatricians, mainstream secondary school teachers and police officers from undertaking autism training?

This chapter will discuss the key issues which emerged from the online survey and the themes from the interviews. The findings will be reviewed in the light of the literature in Chapter 2 which showed that all these three groups lacked knowledge on autism and there was a need for more training.

6.2. Number of participants who had received training in autism

My study clearly showed that the majority of the participants across the three groups had received very little or no training on autism. The survey showed that 85% of the 162 respondents had not had any training on autism in the last three years. Only 24 respondents (8 paediatricians; 15 teachers and 1 police) had undertaken at least one autism training session in the past three years. This is a similar finding to other international studies. For example, a study in Malaysia found that of 107 primary

teachers, 49% reported that they never attended autism training, while 28% said they had participated in one course on autism (Wei and Yasin, 2017). Chown's (2009) study found that 62% of police officers in the UK had received no formal training on autism and similarly, Crane et al. (2016) showed that two thirds of the police in their study had received no training on autism. A more recent study by Gardner, Campbell and Westdal (2019) found that although around 60% of Law Enforcement Officers (LEOs) reported having responded to one or more calls involving an autistic individual within the past year, over 70% of officers reported they had received no formal training on autism. This confirms that police are regularly meeting autistic individuals, but the majority are doing this without any kind of training that can help them to support autistic people appropriately.

There are few studies which showed how many paediatricians received training on autism. For example, Suhumaran, Leon and Wong (2021) found that the majority of paediatricians (73%) did not receive any training on autism. In Martínez-Cayuelas et al.'s (2017) study, 64 percent of the paediatricians believed that their own knowledge was insufficient. This corresponds with another study by Suchowierska and Walczak (2013) which found that Polish paediatricians' knowledge on autism was also insufficient. Jones (2019, p. 71) argued that although a higher number of professionals working in education, health and social care are participating in autism training '…there are still many whose knowledge is limited'. Thus, to address this problem this study attempted to explore the views of professionals themselves to understand better how they can be helped to learn more on autism.

6.3. Dissatisfaction with their current autism knowledge

Participants (6 paediatricians; 8 teachers; 10 police) were dissatisfied with their actual autism knowledge. This corresponds to previous research amongst mainstream teachers by Able et al. (2015). Although awareness of autism is increasing, this finding is observed in more recent studies (e.g. Cretu *et al.*, 2020; Van Der Steen *et al.*, 2020). The survey data showed that the majority of teachers (76%) and police (65%) did not feel adequately informed to support autistic people effectively compared to 48% of paediatricians. Interestingly, paediatricians' responses in the survey did not match the interview data collected from paediatricians. In the survey, paediatricians said that they were happy with their level of autism knowledge, but in the interviews, more concerns were expressed about their lack of knowledge on autism. This could be the result of social desirability bias in the survey which perhaps did not feature in the interviews, since in the latter, participants had more time to reflect and analyse their knowledge, and thus provided a more genuine answer.

This is similar to Chown's (2009) findings who used a questionnaire to assess police officers' autism awareness and understanding and found that their self-assessment overestimated their competence. However, in my study this issue was only raised by the paediatrician survey respondents. Fewer teachers and police perceived themselves as knowledgeable in autism. Indeed, the majority of teachers (n=54) and police (n=33) in the survey admitted that they do not know much on autism. This was also confirmed by the majority of interviewed teachers (n=7) and police (n=8). However, despite this, it was evident that most participants (n=138; 85%) in the survey did not take the initiative to obtain more knowledge. This is similar to what Swan and

Perepa (2019) found when they interviewed four police officers who claimed that they were aware of the lack of autism knowledge amongst the police. However, notwithstanding their desire to learn more about autism, it seemed that there was a stumbling block that was preventing police from engaging in autism training.

6.3.1. Lack of autism training in Malta

One of the main factors that seemed to irritate participants greatly, was the lack of suitable training on autism in Malta. This was similar to the findings of Dillenbuger et al., (2016, p. 1) where health, social care, and educational staff, working in the autism services sectors in the UK described the situation as ‘an acute lack of autism-specific training’. Paediatricians in Finke, Drager and Ash’s (2010) study also exposed that courses on autism are lacking. This study showed that this lack of available training in Malta should be tackled immediately because it is very likely that non-existent training would have a detrimental impact on the desire and motivation to learn more on autism, since they do not have opportunities to turn to, to obtain such knowledge.

However, it is important to highlight that it is not just a question of having available training but, suitable training. Indeed, this study showed that when the training is not suitable for the participants, they will stop attending and this could be interpreted as having no interest in the topic. Thus, the effort to organise training will diminish. The majority of participants (155 of 162 respondents) in the survey stated that they would be interested to participate in training on autism. When training is not available, those with particular interest to extend and deepen their autism knowledge and understanding tend to turn to other sources such as the media and hearsay. In Modell and Mak’s (2008) study 35% of police officers said that autism means ‘Rain Man’.

Perhaps nowadays people will refer to ‘The good doctor’, which is a more a recent series. It could be the case that when autism training is not available, people turn to other sources (like TV series or movies). Although their willingness to take the initiative to use other methods to learn on autism is laudable, it can be problematic since they can encounter incorrect information. Nowadays we are living in a society dominated by technology which is not possible to control. However, encouraging professionals to reflect on this would be extremely important to analyse the reliability of the source that they are getting the information from. This could also be included in the training content, to provide an essential skill that participants can use when they come across material on autism.

6.3.2. Insufficient initial training had a ‘ripple effect’

Similar to other studies, participants in this study were very critical about their initial training. Although the survey result indicated that the majority of paediatricians (76%) and 43 percent of teachers had some information on autism in their initial training, the majority of the respondents across the three groups (58%) believed that this was not adequate. Thus, whether autism information was provided or not, it is evidently clear that it was insufficient to enable them to understand and support autistic people. Literature illustrates that the latter is an international practice. For example, in Finke et al.’s (2010) study, paediatricians in the US reported the same problem. Participants (undergraduate students in the Initial Teacher Education and their tutors) in Ravet’s study (2018) agreed that the initial training provided insufficient input on autism. This also corresponds with the external audit data about special needs and inclusive education in Malta (2014) which showed that only less than 20% of Maltese teachers

believed that their initial training was adequate to support pupils with special needs. Similarly, in England, an Ofsted (Office for Standards in Education) report which dealt with the preparation of new teachers to work with pupils with special needs, found that schools lack the expertise to train teachers for such work (Ofsted, 2008). The majority of the interview participants (6 paediatricians, 9 teachers, 10 police) strongly recommended that more autism training should be included in the initial training which echoes previous calls in other studies (e.g. Barnard *et al*., 2002; Mourier, Hess, and Heflin, 2011; Rosenzweig, 2009).

Nevertheless, the current study expanded on this since the majority of the participants (4 paediatricians; 8 teachers; 10 police) pointed their fingers to their initial training, as setting up an apathetic scene which keeps on dragging throughout their career. For this reason, participants considered no information or too little information on autism, as one of the main barriers to engage in autism training throughout their career. This could be an example of what Cross (1981) identified as dispositional barriers to adult learning. Their past experience of not including autism in their initial training is having an impact on their interest to learn more on autism. Indeed, the majority of the participants suggested that this should be the starting point to address the problem for the current low-uptake of autism training. These findings indicate that it is a priority that autism is embedded in the three groups' initial training.

6.4. A sense of helplessness in the professionals

This study suggests that the participants' motivation to engage in autism training is being taken over by a shared sense of helplessness when it comes to autism. This

study gave a clear indication that the main reason underpinning such helplessness was their usually failed attempts to deal successfully with autistic people. This could explain why all the participants claimed that they were very eager to learn from success stories involving professionals like them. Their past experience of not succeeding in autism could be seen as a dispositional barrier to engage in autism training. This study suggests that following this sense of 'failure' when attempting to support autistic people could have led to a change in attitude towards learning, which is preventing them from engaging in autism training.

6.4.1. Autism seen through a negative light

The present findings also suggested that most of the participants (9 paediatricians; 6 teachers; 8 police) currently possessed negative connotations on autism. Literature indicates that participants could also be influenced by the media exposure. For example, Brewer, Zoanetti and Young (2017) found that media exposure which linked crime and autism instilled more negative attitudes towards autistic people. In a recent article in The Guardian, Harris (2021) remarked that, 'Even if the language of 'psychosis' and 'retardation' has dwindled, western societies are still smattered with the attitudes it expressed'. The present findings suggest that the participants' attitude towards autism, as a result of the negative connotations could be affecting their motivation to engage in autism training.

Interestingly in a recent study by Wood and Happé (2021) which gathered the views of autistic teachers, some participants remarked poor attitudes towards autistic pupils particularly how their colleagues talked about and dealt with autistic pupils. One teacher said:

> "I think that they would treat me differently and I wouldn't be given the respect I have now from other staff members" (Wood and Happe, 2021, p 12).

Teachers and other autistic school staff revealed that this atmosphere makes it very difficult for them to share their diagnosis. Many participants reported that such atmosphere in schools resulted in significant mental health difficulties. This shows that training should address the issue of prejudice and stigma, that is still existent. There are studies that show that training does have a positive impact on the non-autistic people and it does reduce the stigma about autism (Gillespie-Lynch *et al.*, 2015; Jones *et al*., 2021).

6.4.2. Antipathy to autism education

This study suggested that because the majority of the participants had negative connotations with autism, they might develop antipathy towards it. The present findings correspond with previous studies involving mainstream teachers who find autistic pupils most difficult to handle (Syriopoulou-Delli *et al*., 2012; Wilmhurst and Brue 2010). This study also illustrated that paediatricians were not very interested in autism because it does not involve any cure. Similar to prior findings, (Christiansen, Minich and Clark, 2021) police claimed that they were uncomfortable to act when they encountered an autistic person because they felt insecure and scared that their reaction would escalate the situation and make matters worse.

6.4.3. Making referrals is easier than obtaining knowledge

The present sense of helplessness among participants could also be linked to the common behaviour across the three groups of instantly referring autistic people to

someone more knowledgeable in the area, rather than taking a personal initiative to learn more on autism. This could instigate a missed opportunity to obtain more knowledge on autism. However, this study identified the impact of immediately referring without considering to obtain knowledge themselves. This could be a result of a small country, where most of the professionals have their own niche and practically almost everybody knows each other.

However, my study brought to light an important issue that these professionals are still meeting autistic people and they still need skills. Their comments showed that they were focusing more on 'treating' autism and were overlooking the instances that autistic people use their services perhaps indirectly. For example, as mentioned by the participants themselves, paediatricians see autistic patients who have diabetes, asthma, cancers, and so on. It seems that this issue was overlooked and they were not realising that they still needed knowledge and understanding of autism to support them appropriately. There is also the issue that teachers and police are meeting autistic people during their work without even knowing. Thus, it is important for example to be trained about recognising the signs.

A similar thing is happening in mainstream schools where teachers tend to rely too much on LSEs (and this seems to affect their willingness to enhance their autism knowledge). Interestingly the participating TA's in Blatchford et al.'s (2009 a, b) studies claimed that teachers did not understand their roles and they felt undervalued. My study can confirm that teachers in Malta did not understand the LSE's roles and their role was being over-rated. Similar to Blatchford et al.'s (2009a; 2009b) findings, the education of the autistic students was left totally in their hands.

With regard to the police, the impact of this expressed helplessness was more on their confidence. It seemed that they think they can never acquire the skills to support autistic people. Thus, it could be helpful if police training included a boost for their confidence and a message that they can do it as well. Thus, the present findings suggested that training should start by delivering the message they all have the responsibility to learn on autism. Wlodkowski and Ginsberg (2017, p.82) described responsibility as 'the cornerstone of adult motivation'. When this is not present, as it sometimes appeared to be in this study, the likelihood is that they do not participate in training.

6.4.4. A perception of meeting just a few autistic people

Paradoxically, most of the participants stated that they did not meet a very high number of autistic people in their work, although studies have shown that there is an increased prevalence of autism in recent years, the most rapidly increasing amongst all the disabilities (Boyle *et al.*, 2011). The survey showed however, that the majority of teachers and police had met between 1 and 5 autistic individuals in their work in the past three years. Only paediatricians said that they had met more than 20 (see Figure 2 in Chapter 4).

This discrepancy could be the result of meeting autistic people without even knowing. Indeed, some participants of the interviews, especially the police shared this concern of encountering autistic people without realising. Furthermore, interviews helped to elucidate that the number of autistic people that participants supported through the years was much less than that portrayed in the survey because they explained that there is a big difference between just meeting autistic people and knowing how to

provide appropriate support. Thus, this study indicated that participants still thought that they were not meeting many autistic people in their work. This contradicts the findings from other international studies which show that the demand is much higher, given the number of autistic people in society (Gardner, Campbell and Westdal, 2019). My study indicated that we are far behind from having professionals well-prepared to confidently address autistic people's needs. The perception that they are not meeting enough autistic people in their work hinders them from acknowledging the need to learn more on autism.

6.5. Participants' training culture

When discussing the issue of professionals engaging in autism training it would be sensible to consider the training culture in Malta. Enser and Enser (2021, p. 24) remarked that one of the main challenges of creating an effective professional learning is to 'develop the right culture to foster it'. The majority of the survey respondents (59%) reported that they had not received awareness training on any topic in the last three years. This was mostly seen amongst police (86%). Although teachers and paediatricians' responses indicated that they had more awareness training, still the majority (57% and 55% respectively) did not receive any training in the past three years. These results intimated that the culture of continuous learning is still not ingrained in these three groups of professionals.

Indeed, going deeper in this issue, the early school leaving in Malta could shed more light on this apparent culture. In 2020 the early school leaving rate in Malta was 16.7% which is still higher than the target 10% rate set by the EU (Eurostat, 2021). However,

in the past 10 years Malta has decreased this rate by around 7% (Gauci, 2021). Malta set its first national policy for the prevention of early school leaving in 2014 which had contributed to this decrease in rate. Very recently Malta published an Early Leaving from Education and Training policy, for the next 10 years (Ministry for Education, 2021). Such policy aims to promote lifelong learning and increase the educational achievement of as many people as possible.

The Covid-19 pandemic, which upended lives around the globe cannot be ignored. The Organisation for Economic Co-operation and Development (OECD) outlook 2021 report highlighted that the pandemic may also have an impact on the learning attitude of children and youth, due the disruptions of regular schooling. This report argued that in the short term the early school leavers could increase. Interestingly, this report warned that in the medium and short term, this could lead to a current generation, who fail to develop positive learning attitudes. This report highlighted three main issues that countries should focus on to enable more individuals to continue furthering their learning. These are: (i) learners should be placed at the centre of learning and the learning opportunities should be varied to reach out as many people as possible; (ii) the skills given should instil in them a habit of learning and should utilise the power of technology; (iii) high quality must be assured to smooth the transition of the skills taught to real life situations. Malta should take note of the aforementioned issues in an effort to cultivate a more training culture, since this study also pinpoints that the existent training culture is still very weak.

6.5.1. Making autism education a high priority

Participants admitted that their daily work tends to take over. Internationally autism is currently prioritised by certain Governments (such as UK and USA) by taking the initiative to mandate autism training across various professionals. While in various countries around the world, a great deal of importance is given to training, it seems that in Malta this investment is still absent. Indeed, very recently the Maltese Government published a National Autism Strategy (2021-2030), which included very limited information about how to reach out to professionals to improve their understanding on autism. It does not recognise that many professionals have not yet received sufficient training to support autistic people effectively. Reference was merely made to awareness campaigns which will be organised, 'where relevant, in the form of continuing, up-to-date training, to different sectors of society, such as the educational sector, the health sector, the social care sector…' (Ministry for Inclusion and Social Wellbeing, 202, p. 10). It lacks detail of how different professionals could be reached and learn more on autism. Moreover, it does not make any reference to mandatory training for particular professionals. In this study while teachers and police participants were in favour of mandatory training, paediatricians were more reluctant with mandating autism training. They argued that forcing adults to learn about something will not increase their motivation to learn more.

This contradicts the trend in various countries in which priority is given to awareness training for different professionals. For example, in the UK it has been proposed that as from September 2018, autism information should be compulsory for the initial

teachers' training course. For example, Professor Anne Lisa Gordon of Saint Mary's University in London said:

> Giving the rising numbers of children with an autism diagnosis, we think it's really important to prepare all our trainee teachers working with these children.

Similarly, a new law in Utah (2021) mandates police to undergo autism awareness training. In 2019 there was an attempt to pass a bill in UK Parliament (MP Susan Elan Jones) that would mandate autism awareness training for all police officers in England and Wales. This bill is still in progress. Also, in Australia recently the police force is piloting a training module to make it available for all frontline officers in 2020. In 2017 Florida senate passed a bill that would mandate the Florida police to have specific training on autism. Meanwhile, little is known about the logistics of providing such training and the impact of mandatory training on practice. Such information will help these countries to ameliorate the training as well as inform other countries through their experience.

6.6. Views of participants on the need of training

The interview participants in all three groups unanimously agreed that autism training was lacking. Such need for training was also found in recent studies that explored professionals' experiences of supporting autistic people in their work (e.g. Gardner, Campbell and Westdal (2019) – police; Martínez-Cayuelas *et al.* (2017) - paediatricians; and Ravet (2018) - teachers. The survey found that overall, about two thirds of respondents (65%) thought it was extremely important to have training in autism. The majority of all the groups (58 teachers [78%]; 35 police [61%]; and 37

paediatricians [56%]) gave a rating of between 7 and 10 (10 being extremely important). This corresponds with an Australian study which shows that for Australian paediatricians, autism was considered one of the top five research questions that matters for them (Rudolph *et al.*, 2009). Similarly, a survey carried out in 2017 by NASUWT (National Association of Schoolmasters Union of Women Teachers) found that the most common training received by teachers in the UK within the last two years was about specific needs and/or conditions such as dyslexia, ADHD or autism. Indeed, eighty-five percent of respondents reported that they had received training in these areas (NASUWT, 2018). To my knowledge, there are no studies that explore police's priority to autism training compared to other topics, but there is a constant call for more autism training related to policing (e.g. Christiansen *et al.*, 2021; Swan and Perepa, 2019).

6.7. Motivators for learning and training

Ingwersen and Järvelin (2005) maintain that the main motive for humans to seek information is to satisfy a specific need. Information-seeking occurs when a person realises a need to obtain information and intentionally takes action to resolve that need (Agarwal, 2018). If they do not perceive a need for information on a topic, they are unlikely to seek out information. However, this study found that having a need was not sufficient in itself to lead to their participation in training. The majority of the interviewed participants (7 paediatricians; 8 teachers; 8 police) said they needed a "motivational push" to take concrete action. During the interviews although most of the participants (6 paediatricians; 8 teachers; 10 police) realised that they had a great need for autism training, they had not engaged in it. A 'motivational push' through the use of various

incentives was thought likely to increase the possibility of engaging in training. Interestingly, financial gratification did not feature as a motivator. Paediatricians were more focused on receiving a promotion than the police and the teachers. They felt that training could improve their career prospects. On the other hand, given time off from work to attend training was thought to be a key motivator for the teachers and the police.

6.7.1. Participants' motivation depends on type of delivery training

Participants put a great deal of weight on the methods of training delivery. They believed that such methods have a direct impact on their motivation. Although Robinson (2019) focused more on a person's learning style which could determine his/her preferences to a particular learning method, this study found a number of common preferences across the three group. Although it was expected that a particular group of professionals could have a specific preferred training delivery, this study instead highlighted six common training methods, and characteristics, which emerged from the interview data. These were: (i) to be involved in training, (ii) to listen to the experiences of autistic people, (iii) to be enjoyable, (iv) face-to-face over digital learning, (v) simulation-based learning, and (vi) a suitable environment. Although the reasoning underpinning such preferences varied, their preferences were very clear. For example, it was very evident that participants showed a preference to be involved in the training, through discussions rather than be passive listeners. This could link to their interest of finding an answer to the several dilemmas that they face when they encounter an autistic person.

Another common method was their eagerness to hear from autistic people themselves and their families. This very much tallies with the findings of a number of recent studies (e.g. Gulberg *et al.*, 2021; Nind, 2011). The interview participants intimated that training in general in Malta seems to be quite unappealing. Although the survey shows that the majority (64%) of respondents were quite satisfied with the training they had attended, the interview participants argued that they expect training to be something that they can enjoy rather than regard as a punishment. Not surprisingly, participants showed a preference for face-to-face rather than digital learning. This could be as a result of our Mediterranean culture, which is very much based on human contact. This could also suggest that digital learning on its own is not sufficient. In a US study Teagardin et al. (2012) argued that the result could indicate that video training alone is not adequate to help police officers to master the training material. Teagardin et al.'s study raised the issue that to make good use of digital learning, you ought to consider that you need a good budget to make it effective.

It is noteworthy that paediatricians (n=6) and teachers (n=8) expressed more interest in digital learning than police and they were more aware of its benefits. Indeed, they were more willing to make use of digital learning in the future. It could be that this view was the result of the adjustments they had to make in their work as a result of the Covid-19 pandemic. As such police work could not be adjusted to online during the pandemic. It would be interesting to study further whether more professionals are now considering digital learning, since they experienced the latter a great deal recently. It is widely observed that during the pandemic, the demand for digital learning surged. As a result, it evolved quickly, because the situation promoted the adoption of digital technologies. Moody's Corporation (Moody's - the credit rating firm) (2020) predicts

that non-traditional education will be pivotal for economic activity. Interestingly, Moody envisages that this trend will continue even after the pandemic subsides.

The participants also chose simulation-based learning which could indicate their eagerness to learn how to work with autistic people. Participants (7 paediatricians; 5 teachers; 9 police) remarked that they do not feel comfortable working/supporting autistic individuals. This corresponds with previous studies (e.g. Austriaco *et al*., 2019 - Paediatricians). Thus, this preference suggests that simulation could be a good solution since it serves as good preparation in a safe environment. Biech (2017, p. 190) argued that "People freeze in high-stress situations because their working memory becomes overwhelmed by the emotional reaction". Interestingly, when talking about the effectiveness of the training modality, participants included the physical environment as well. While teachers prefer to have training at school, police and paediatricians prefer to have training outside their work environment. This suggests that for teachers their work environment seems to produce more positive emotional states that could facilitate their learning. On the other hand, the working environment of police and paediatricians might cause discomfort, as they believe that this environment could interfere with their learning.

6.7.2. Duration of training

The training's duration also seemed to be related to the participants' level of motivation to undertake autism training. The interview data helped to elucidate participants' concerns about training. It was clear that they were often inundated with training on many different topics (e.g. the top two topics frequently mentioned amongst paediatricians was nutrition and vaccination; amongst teachers ADHD and dyslexia,

and amongst police, domestic violence and mental health). Many (6 paediatricians; 10 teachers; 8 police) stressed that training should respect their other commitments and take into consideration that they already have an extensive curriculum. If the training is too lengthy to the extent that it interferes with their personal lives, they claimed that they were not keen to participate in it. Stolovitch and Keeps (2011) argue that for training to be effective, the Goldilocks principle must be applied, that is, not providing a too lengthy session, or too little information, but 'just right'. My study found that providing information that is related to their particular role was considered 'just right'. Additionally, some participants (4 paediatricians; 3 teachers; 3 police) were irritated with the idea that autism should be privileged over other subjects. This could suggest that sometimes the good intention of people working in the field of autism to tirelessly campaign for more training on autism could backfire, and it might put off professionals to undertake training on autism. This study brought awareness about the fact that professionals have other topics or commitments related to their profession and it seems that when this is not recognised, they would not even consider taking up autism training.

This study also found that it was unlikely that participants (6 paediatricians; 9 teachers; 9 police) would attend training during their personal time and they wanted it to be held during working hours. About half of the survey respondents said they were willing to commit between 1 to 3 days to autism training over the next two years. However, when discussed in the interview, they emphasised that their commitment depended on whether it was held during their working hours. This was quite surprising since almost all participants (7 paediatricians, 8 teachers and 10 police) felt strongly that they needed autism training.

6.8. Professionals' interest in autism training

Participants from across the three groups provided a good insight into what might motivate them to engage in autism training. Course content was important. Most participants (7 paediatricians; 9 teachers; 8 police) wanted to focus on practical ideas rather than on the theories of autism. Peebles and Mendaglio's study (2014) found that if the training was more theoretical than practical, it was felt to be ineffective. Also, this was one of the issues raised in the survey carried out by NASUWT in the UK. Indeed, one respondent said:

> It is great to have the awareness, but I need practical help and tips for children with specific difficulties such as autism and how to best help them (NASUWT, 2018, p19).

Similarly, Combrinck and Wakefield (2010) in a study on domestic violence training for police, found that the training increased their basic awareness about domestic violence, but the majority found it hard to deal with such situations in practice, so the recommendation was that such training had to be more practice-oriented. However, it could be that since participants are often keener to obtain practical knowledge, including the professionals in this study, most could have ignored the importance of theories in training they could have received. Indeed, Enser and Enser (2021) emphasise that to have effective training, both theory and practise are necessary.

It was very evident in my study that participants (6 paediatricians; 9 teachers; 7 police) were eager to learn from the real–life success stories of professionals like themselves. Despite being initially sceptical about their abilities, seeing colleagues managing situations with autistic people effectively, could eventually improve their confidence.

Thus, it is suggested that training in autism includes a number of success stories related to the particular role of participants.

6.9. Training that is tailor-made for the participants' role

All participants felt their motivation was likely to increase if the training was tailored to their specific role rather than generic. Many (8 paediatricians; 8 teachers; 9 police) felt that generic training on autism was not useful. Similarly, Humphrey and Symes' (2011, p. 40) found that Teaching Assistants felt that generic training was not useful and suggested that, 'training may need to be differentiated for different school personnel'.

Half of the interviewed paediatricians in the current study expressed their frustration when they had autism training which included information that was not useful for their job (e.g. PdF7). This experience often demotivated them and made them less likely to engage in future training.

6.9.1. Autism training and the role of paediatricians

Autism may be diagnosed as early as 18 months of age (Hyman, Levy and Myers, 2020). Generally, the first contact that parents make to voice their concerns about their child's development is with a paediatrician. Paediatricians very often see the child at a stage when the characteristics of autism may or may not be very clear yet. Studies have found that the parents' first concerns are usually related to language and communication delays (e.g. De Giacomo and Fombonne, 1998; Herlihy et al., 2015). Others have also found that parents observe a delay in social milestones (Werner, Dawson, Munson, et al., 2005) and fewer parents (only 6%) observe and become

concerned with restricted and repetitive behaviours (Herlihy et al., 2015). Parents in Chawarska, Paul, Klin, et al.'s (2007) study also identified motor delays and social differences in their children younger than the age of two. Concerns appeared to vary with age and between the age of two and four, concerns were associated more with social-communicative differences, poor cognitive functioning and being non-verbal. From my experience, Maltese parents often report communication and social differences in their child, such as limited or lack of eye-contact, being unresponsive to his/her name, lack of speech, and showing interest and engagement with objects more than with people. Unlike the above mentioned studies which have identified a variety of areas that parents are usually concerned about, according to my observations, Maltese parents tend to focus mostly on the social and communicative areas, particularly the absence of speech. This could partly be the result of Malta being a small country where the physical layout permits easy observation of others, where gossip tends to be an 'expected' practice, and having a good reputation is given a lot of value (O'Reilly Mizzi, 1994). Parents tend to compare their children to those of other family members and neighbours, and the development of speech is given priority as it is generally associated to young children's level of intelligence and future success in life. Other flexibility characteristics such as rigid play and a preoccupation with routines are also likely to be reported particularly when parents start taking their toddlers to playgrounds and nursery, which gives them a greater opportunity to compare their child to others . Thus, at this stage, the role of the paediatricians includes listening carefully to the parents' concerns and most importantly, having the necessary knowledge to acknowledge such concerns, be familiar with these early characteristics, and guide parents through them.

This study showed that paediatricians also follow autistic children into their childhood years due to various other matters such as, being sick, or because they have other medical conditions such as diabetes, cancer, asthma and so on. Thus, this study showed that it is imperative that paediatricians are informed about how the characteristics of autism (within the communication, social, flexibility and sensory differences) (APA, 2013) manifest themselves differently in different children, and how they could develop throughout the years, to be able to support them appropriately.

6.9.2. Autism training and the role of mainstream secondary school teachers

Research indicates that more autistic children are being educated in mainstream schools (Conn, 2014). However, the extent of how successful such an experience is depends on a number of factors, including the teachers' understanding and knowledge of autism (Eldar, Talmor, and Wolf-Zukerman, 2010). Teachers' success in how positive they can make the experience of autistic students often relies on how well they adapt their teaching methods and classroom environment to fit the unique learning style of autistic children, and how well they manage to socially include them with their peers within the classroom setting and school social activities (Eldar, Talmor, and Wolf-Zukerman, 2010).

Social interaction difficulties can be especially problematic in schools. Batten, Corbett, Rosenblatt et al. (2006, p. 5) argued that 'difficulty with social relationships, ranging from being withdrawn, to appearing aloof and indifferent, to simply not fitting in' and being seemingly 'insensitive to the feelings of others' can all lead to social rejection and bullying. The rate of bullying among autistic students is reported to be higher than that of NT peers or students with other SEN (Humphrey and Symes, 2010b). Given

these problems, social skills training for autistic children can be regarded as an essential part of their school curriculum (Parsons *et al.*, 2011). Moreover, teachers need to be aware of techniques that would promote the social inclusion of autistic students and prevent bullying incidents.

For autistic students the school environment can present a multi-sensory bombardment in terms of sounds, smells, textures and visual impacts that usually lead to both a distraction and a source of discomfort (Ashburner, Ziviani and Rodger, 2008; Caldwell, 2008). Notwithstanding the increased awareness of sensory sensitivities in autism, Wood (2019, pp. 45-46) revealed that she was not '…convinced that in our schools there is a sufficiently nuanced appreciation of this multi-faceted phenomenon'.

This study showed that the role of teachers with autistic students is multi-layered. In addition to ensuring their academic inclusion and progress, mainstream teachers need to be given knowledge on the different ways autistic students experience and understand the social world. Given that school is a *miniature social arena* where many social interactions and experiences take place, it is necessary for teachers to be trained on how to support autistic students and identify their social vulnerabilities, to promote their inclusion and minimise negative social experiences.

6.9.3. Autism training and the role of the Police

Generally, the role of the Police is to maintain social order, ensure that people are abiding by law, and prevent anti-social behaviour, among many others. Autistic adults with average cognitive abilities and verbal skills usually make their way gradually to unsupervised independence in the community. Reconsidering the social and

communicative differences of autistic people as well as their stereotypic behaviours and sensory expressions, it becomes apparent that within the context of the police's role, it is very likely that certain behaviours seen in autistic people can be misinterpreted as deliberately unlawful or anti-social, when themselves had no criminal intent.

Similar to the teachers and the paediatricians, police (n=8) identified autistic people's atypical behaviour as:

> …a wake-up call, [that] something has to be done about it, because I think we are all somehow aware of the negative consequences when their behaviour is misunderstood (PM2).

Police gave examples such as when an autistic person becomes a suspect based on his or her deviant behaviour. They claimed that such misinterpretation often results in an inappropriate approach towards autistic people. They agreed that this could only be addressed through relevant training that helps them to identify and understand such behaviour and learn how to respond to it. A common issue raised was how they could know that someone has autism, because according to them: "…the most difficult task is to distinguish between someone who's playing up and someone whose behaviour is a result of autism" (PF7).

A dominant issue that emerged from this study is clearly the difficulty police face to recognise an autistic person during their work, when time is against them and they need to act fast. This calls for training that exposes them to autistic people who can share their experience of living with autism, and anecdotes of family members to

provide police with more understanding of the realistic characteristics that surround the lives of these people.

6.10. Preferred content of the course

To my knowledge, this is the first study that included different professions that are not related to each other, and notwithstanding their different roles, and their emphasis for tailor-made training, they are still in agreement on topics that they felt eager to learn more about. This study found there were three main areas that participants (8 paediatricians; 7 teachers; 5 police) would like to be included in any training. These were (i) effective communication and interaction, (ii) how to tailor their care (i.e. how they can modify their style to appropriately support autistic people) (iii) and how to understand and respond to atypical behaviour (i.e. to understand behaviours that offer a challenge and what to do when faced with such behaviour). This suggests that if training providers incorporate such topics in the training they design, while ensuring that it addresses the unique characteristics of each profession, it is likely that professionals would be more attracted to attend.

6.10.1. Course content for paediatricians

The majority of the paediatricians in this study raised the issue that they wished to learn more on how to support the parents of autistic children. They admitted that this was an area in which they felt they were not well-equipped with skills to provide the necessary support. The diagnosis of a child with autism is likely to create high levels of stress in parents (Chamack *et al*., 2011). Thus, in these very early and sensitive stages, parents need a sympathetic and understanding ear, and most importantly, a

professional who is able to give a factual but compassionate explanation of what autism is (Maciel de Aguiar and Pereira Ponde', 2020). Unfortunately, from my experience, many parents report feeling devastated about how the news was given to them. Therefore, training for paediatricians should include skills and techniques on how to break the news to parents and guide them to specialised intervention centres for more support. Moreover, training on the various first signs that an autistic child could present with is also important. It is necessary that paediatricians are aware of the diversity that exists within the autism spectrum, and that a child may not present with classic signs, such as lack of eye contact, but still be on the spectrum. Such information could result in less late diagnoses or misdiagnoses, and it would give parents a degree of explanation to the differences they would be observing in their child.

In this study, paediatricians also expressed the need to learn more about how to communicate with autistic patients themselves. They expressed their wish to have the know-how to communicate directly to older children rather than having to revert to their parents. They argued that this happens because they do not feel confident to communicate with them, and they feel at a loss. Thus, training that includes an understanding of the different styles of communication and social approaches of autistic children could provide paediatricians with more confidence. Practical tips such as the importance of talking to autistic children clearly, using simple language and a low voice, the use of pictures to explain what the visit will entail, and spending the first few minutes trying to build a positive relationship through the child's favourite toy or game, could perhaps make it easier for the paediatricians to communicate with autistic children, and make the child's and family's experience less distressful.

Paediatricians claimed that although they may have general knowledge on autism, especially on the identification and diagnosis of autism, they were keen to learn more on how they can adapt their approach, when dealing with autistic people. They agreed that this had never been addressed in training and the majority (n=8) considered this training need as their current priority. Their willingness to obtain such skills through training can be depicted in the words of PdF10:

> I feel that I have a knowledge deficit on autism, and this is affecting how I deal with them, I don't know how to best approach them. I believe this is the biggest gap…there isn't any training to understand autistic patients and how our approach should be modified.

Paediatricians' views about challenging behaviour focused more on "distressed" behaviour. Many of them (n=7) interpreted this behaviour as physical aggression, which they claimed they found very difficult to handle. Their main concern was that this behaviour usually hindered them from doing their job well. Thus, they agreed that this situation motivated them more to undertake training. PdF8 explained:

> I would be very interested to know more about the management of autistic patients…I can say that children who exhibit aberrant behaviour are my main motivators to attend training…same thing with my colleagues…

Such feedback from the paediatrician participants speaks loud about the lack of understanding they may have about autism. Training needs to include practical examples of how restricted behaviour and sensory differences can manifest themselves in anxious behaviour in a doctor's clinic, by providing paediatricians with a multi-sensory experience of how an autistic child could experience his/her visit. An example could be creating an environment that resembles a paediatrician's clinic with

sensory effects similar to the one depicted in the short film ‘What it’s like being autistic (Sensory overload)’ (NAS, 2016). Entering a new environment and meeting a new person, while not understanding the exact reason for being there, in a room that is perhaps loaded with overwhelming sensory information, is likely to cause high levels of anxiety in autistic children. Such training experiences would help paediatricians understand that the “distressed” behaviour is a way of communicating anxiety and practical tips like the ones mentioned above could help the child process the information with less anxiety and eventually feel calmer during the visit.

6.10.2. Course content for mainstream secondary school teachers

Training for teachers would need to consider practical tips on both the academic and social inclusion of autistic students. There was a consensus among the teachers in this study, that training on academic inclusion would motivate them because this would facilitate their teaching and they would be able to reach out to autistic pupils. Many teachers (n=8) were concerned that they did not know how to recognise these students’ needs and adjust their teaching method accordingly. Teachers focused on their need to learn more how to adapt their teaching style so that autistic pupils can be included in class:

> Teachers need training on how to adapt their lessons in a way that autistic students can follow and feel part of the class, not just staying there with their LSEs (TF9).

Training within this context needs to embark on the idea that those teaching techniques that work well for autistic students, and accommodate their communication and flexibility needs, would also benefit the other students in their class with diverse

learning styles and backgrounds. For instance, having a clear schedule of the activities to be carried out during the lesson, the use of visual material and technological techniques, and using clear language during explanations, are likely to promote the learning of all the students in class. Jordan (2008, p. 13) claims that mainstream teachers do not need to be autism 'experts',

> …but they must know about learning and teaching (and not just 'delivery' of packages) and about the diversity that exists in humankind in the way we learn and understand the world (Jordan, 2008, p. 13).

A practical suggestion for teachers could be to set up a meeting or two with the autistic student prior to the beginning of a scholastic year, to get to know the autistic students better, learn about their likes and dislikes, and perhaps their areas of interest to start building a relationship with them. This would ease the students' anxiety and provide the teacher with a better understanding of the student's communication style. In this study, communication with autistic students was also considered a priority for teachers. They expressed their wish to learn more how to talk to these students to achieve some level of communication with them.

> Personally, what motivates me most to choose autism training is to learn how to communicate with these children…I feel very sad that I don't feel comfortable communicating with autistic pupils…personally this is something that saddens me most because one of the satisfactions of our work is talking with the children (TF4).

Training should help teachers understand the spectrum of communication abilities in autistic students. Mainstream school teachers may come more in contact with autistic students who have average or good verbal abilities. However, training should include a clear explanation between talking and communicating, to help teachers understand

that although a student may be very talkative, difficulties in communication may still persist. It is particularly important for training to include an understanding of the social aspect of communication. It is helpful for teachers to understand why an autistic student may blurt out answers rather than wait for his/her turn, why they may not change their communication style when talking to their teacher and their peers, and why they may point out a teacher's mistake or a different intonation of a word – which is something for which many of the English speaking students I work with, whose diction is often perfectly acquired through television programmes, get told off about.

Considering the social and emotional differences of autistic students (Dijkhuis, Gurbuz, Ziermans *et al*., 2019), training should also embark on helping teachers understand the different ways autistic students may use to relate to their peers. It is also important for teachers to understand that peers do not have the natural ability to understand their autistic classmates. Therefore, training should provide the teachers with skills to create a classroom atmosphere that celebrates diversity. Training for teachers should also include a good understanding of bullying, particularly subtle bullying, which autistic students are mostly vulnerable to (Zablotsky, Bradshaw, Anderson *et al*., 2014). Teachers should be helped to develop a mindset of questioning what could have happened, rather than taking a bullying incident at face value. Autistic students may be encouraged to break the school rules or pass inappropriate comments to teachers, which they would do perhaps to gain friendships. When teachers are unaware of such situations, their reaction could be an 'unfair' one towards the autistic student. Such information could be presented to teachers during training through various clips which depict these incidents, and through anecdotes of autistic people. Goodall (2018) maintains that policy and practice should be informed by the experiences of autistic

students who are experts in what would work best for them. Goodall (2018, p. 14) claims that:

> Without their individual perspectives educators and policy makers will always remain as outsiders looking in trying to judge what is best.

Similar to the paediatricians, teachers claimed that they found it difficult to deal with behaviour that presented them with a challenge. Many teachers (n=8) described the atypical behaviours of autistic pupils as “disruptive”. They felt helpless in such situations, and admitted that this increased their willingness to undertake training to obtain more knowledge to help them not only manage but also prevent such behaviours when possible. For example, one teacher said:

> If I had to choose an area…which I feel is really important is challenging behaviour in class, I always take a step back before I say or do something because I wouldn’t know if this is something related to his condition or not…on the other hand, I know that unwanted behaviour which is not tackled will get worse probably (TM2).

Similar to training for paediatricians, teachers’ training should provide an understanding of autistic students’ vulnerability to high levels of anxiety. School presents students with experiences of a *mini* social world which, for students who lack the necessary social understanding and skills, could be very overwhelming to navigate through. Moreover, teachers need to become aware of the discomfort that may be caused by unpredictable changes and by the sensory differences of autistic children. A similar technique to the one suggested for paediatricians could be relevant for teachers as well. Presenting teachers with a multi-sensory experience of how an autistic child could experience the classroom and the playground is likely to give

teachers a good understanding of why autistic students may exhibit challenging behaviour at school, and learn practical tips on how to accommodate to their needs.

6.10.3. Course content for the Police

Training for the police would need to focus on adults who physically cannot be distinguished from people without autism, but whose behaviour may cause suspicion especially when one is not familiar with the condition (Furfaro, 2018). Training for police would need to consider that unlike the teachers and paediatricians, in the majority of cases, the police would not know that the person they are dealing with is autistic. Therefore training should focus on what characteristics to look for and how to respond to them.

Firstly, training should give practical examples of how the differences in the main characteristics of autism, that is, the social and communicative aspect, and the flexibility and sensory differences, can manifest themselves when autistic people are confronted by the police. In particular, training should help police understand how the difficulties of autism impact on their behaviour.

An important area of training for the police needs to include an understanding of the high levels of anxiety that autistic people experience even in situations which most NT people may be able to cope, with minimal anxiety. It is also important for police to know that autistic people seem to be very anxious and scared of them (Purser, 2016) and thus being confronted by police, will automatically escalate their anxiety. For instance, they may become nonverbal due to fear and anxiety and refrain from answering any questions made by the police, or respond to a given command.

Moreover, police need to be aware of the discomfort that may be caused by sensory triggers which could also escalate their anxiety. For instance, sirens and flashing light, raised voices and touch may all overwhelm their sensory system. Similar to the teachers and paediatricians, police seemed to be unaware of sensory issues. Only one policeman made reference to touch, expressing confusion specifically about whether he could use physical restraint with autistic people.

Considering the social and communication differences, training for the police should include practical examples of how these could manifest themselves. Being confronted by a police may cause an autistic person to avoid eye contact, or confront the police back due to a difference in social understanding, for instance, of how one should speak to authority figures. Training should also provide police with an understanding of the subtle communication difficulties of autistic people. An autistic adult may be very talkative and perhaps confrontational and impulsive, potentially using foul language (Furfaro, 2018), but the difficulty in communication persists. Two very practical examples are literal understanding and echolalia. Police training should include the importance of not using sarcasm for instance, and the understanding that autistic people might not understand social cues like gestures. Echolalia may be triggered by anxiety, which may easily be interpreted as mockery if the police are not made aware of such characteristics. Moreover, autistic people may admit to something they would not have done during interrogation. It is important that police are trained on how they can alter their interrogation questions and be aware that certain questions are likely to create an inaccurate response from an autistic person, due to both verbal and non-verbal communication obstacles (Cohen, Dickerson and Forbes, 2014) and perhaps due to a wrong idea they may have, that admitting an unlawful act would automatically

lead them to being let go by the police. The police interviewed emphasised on the importance of training on how to communicate effectively with autistic people:

> …how to communicate with autistic people is something which is highly required, what is the best approach that works with them and how I am going to handle an unusual situation…because that is part of our job (PM3).

This issue was also raised by a number of police (n=7) who emphasised that they felt unable to adjust their approach to deal with autistic people. They claimed that training should include how to respond to autistic people to avoid situations of 'misinterpretation of behaviour' (PM5) and be able to support them. Police confirmed they were never taught how to act differently with autistic people and they recognised this as a shortcoming. However, it was evident that police were determined to acquire this knowledge if it was made available to them: "…my motivation will go sky-high if training shows us how we can change our approach when dealing with an autistic person" (PM2).

As suggested for the paediatricians and teachers, training should include a multi-sensory experience of how an autistic adult may experience an incident with the police. It would be helpful if such training also includes practical scenarios of how differences in communication and social understanding may manifest themselves to provide police with a practical understanding of what the situation might look like. Moreover, in every training, the suggestion of Goodall (2018) remains valid, that training should include anecdotes of autistic people to give professionals the opportunity to listen to their real-life experiences and perspectives and let them explain to us which techniques work best for them.

6.11. Training as the path to do a better job

A number of participants (5 paediatricians; 8 teachers; 9 police) emphasised that their motivation to engage in autism training is coming from their urge to do a better job. At first glance, this point might appear more as a cliché rather than a very valid one. However, the argument that the majority of the participants across the three groups made was strong and cogent. They regarded autism training as a source to help them do a better job. They were aware that since they are ill-prepared to deal with autistic people, they could never do a good job. Similarly, Crane et al. (2016) found that more than one in five police officers were dissatisfied with how they dealt with autistic people. However, a very positive attitude that participants had was that they believed that they could not obtain autism knowledge without training. This corresponds with what Jordan (2008) said about teachers:

> Just as these students have no natural intuitive ways to understand their teachers, teachers, in turn, have no natural intuitive ways of understanding students with ASD. That means we, as educators, have to work out what to do cognitively when working with these students, just as they do with us; we cannot just rely on our natural social instincts in relating to students with ASD (Jordan, 2008, p.13).

Similarly, Milton (2012, p. 884) coined the term ‘the double empathy problem’ to explain the difficulty that autistic and non-autistic people have to understand each other. As autistic people need help to understand the social world, training could be an effective method to help non-autistic people to develop an understanding of autism.

I believe that if this reasoning is explained more to professionals, it could motivate them more to do something to obtain autism knowledge. Literature shows that when people

believe that knowledge obtained through training will help them to be able to do their job better, it could facilitate their decision to engage in training (Pintrich, 1999; Schunk and Zimmerman, 1998). When training adults, Knowles (1973) believed that adults are willing to attend training when they believe that training will help them perform better or solve problems. This study also revealed that the majority of paediatricians (n=7) gave special attention to parents. They explained that their motivation stems mostly from their wish to be able to support parents more.

It is interesting to note that research shows that autistic people tend to look up to teachers and police. For example, when experiencing bullying, autistic pupils usually tend to turn to the teachers for support (Humphrey and Symes, 2010a). Another study by the same authors (Humphrey and Symes, 2010b) found that support from teachers was placed higher than other sources. A number of studies show that school staff play a fundamental role in the educational development of autistic pupils (Efthymiou and Kington, 2017; Guldberg *et al.* 2021; Symes and Humphrey, 2012) Also, Povey (2013) stated that people with disabilities tend to turn to police for protection. Interestingly in this study, teachers and police expressed their concern that they felt unequipped to support autistic people, and this highlights the importance of having these professionals well-equipped with knowledge.

Meanwhile, most research suggests that autistic people and their parents expressed that they were not happy with the support they received from these groups of professionals. Crane et al. (2016) found that 69 percent of autistic adults reported that they were dissatisfied with how police officers treated them. Also, 74 percent of the parents disapproved how police officers dealt with their children. Studies carried out in

different countries show that parents of autistic children were not satisfied with the support given by paediatricians (Hennel *et al.*, 2016). Additionally, the APPGA's 'The Autism Act, 10 Years On' (NAS, 2019) report exposed autistic children and young people's regular difficulty to get the help they need at school due to poor understanding of autism amongst education staff. It is necessary that professionals are made aware of how they are perceived by autistic people. This could serve as a form of motivation for professionals that makes them want to take training, knowing that there are these vulnerable people who are looking out for their help.

6.12. Good training should bring about a change in daily practice

Although participants believed that training was necessary to obtain autism knowledge, many of them (8 paediatricians; 6 teachers; 9 police) did not perceive training as an automatic medium to help them obtain it. This is in line with the literature which states that undertaking autism training does not necessarily make professionals more adept than those who do not receive any training. This was evident in Wood's (2017) research, where she found no difference between those who had received training on autism and those who did not. However, good training should reach its goal of instigating change in their daily practice. The absolute majority of participants in my study emphasised that they value practical knowledge more than anything else. Moore (2017), the creator of the action mapping model for training design, challenges the idea that training is the same as teaching. She goes beyond what she calls 'the school model' that is, providing information and then test what the person has achieved. It is noteworthy that the majority of the studies carried out in the past years about autism training for these three professionals focused mainly on such a system. The literature

review illustrated that the idea was mainly to check how much knowledge professionals can obtain after receiving training, where the primary focus was on knowledge on autism.

The notion of gathering the professionals' perspectives on what could be done to motivate them to engage in autism training is under-researched. Moore (2017) argued that it is a misconception that if people have information, they would automatically do their job better. This suggests that knowledge needs to serve as a catalyst. She said that a course or a one-time session is not the solution because 'people develop habits over time and need time to create new ones' (Moore, 2017, p. 16). In this study paediatricians and police were more inclined to participate in a one-time session as opposed to teachers, who were much more in favour of the approach that Moore promotes. Indeed, the majority of the teachers shared the same thought as Moore (2017, p. 16) when she emphasised that people '…need spaced practice to cement the new habits'. Similarly, for example TM3 emphasised the idea of the spiral curriculum to promote the idea of having several sessions repeating the key issues. It could be that teachers as educators, embrace more the culture of learning and might have more insight of what it entails. On the other hand, it appears that paediatricians and police perceive training more from the receiving end.

Wood (2017) remarked that training does not have any impact on non-autistic people. This suggests that it is not automatic that training would lead to higher autism knowledge and skills to appropriately support autistic people. Wood introduced the concept that training on its own is not enough but it also requires representation that is, the involvement of more autistic people in various sectors for example, autistic

teachers in schools. This is an innovative idea that requires further research in the context of the present findings. This also corresponds with the view of the majority of participants (8 paediatricians; 10 teachers; 8 police) who insisted that having autistic people involved in the training could motivate them more to engage in such training, because their involvement is more likely to instigate this change in practice, which participants were clearly after.

6.13. Summary of the main issues discussed

This study showed that only a small number of participants had received training on autism. This was consistent amongst the three groups and corresponded with other international studies, even recent ones which confirm that this trend persists. Interestingly, the majority of participants across the three groups agreed that there is a huge need for more autism training. Contrary to the main principle of information-seeking theory, this study showed that the need for more information on its own is not sufficient to motivate people to seek information. Indeed, this study clearly indicated that the majority of the participants required ‘a motivational push’ in the form of incentives, as an advancement in career for paediatricians and an exemption from duties for both police and teachers. These were the most common incentives that motivated participants to engage in training on autism.

One prominent motivator that participants highlighted was training that provides practical knowledge rather that theoretical. This also corresponds with some previous research. However, this study expanded on this and the majority of the participants said that real-life success stories were the form of practical knowledge that motivated

them to participate in training. Participants strongly believed that such stories apart from giving them practical tips on how to support autistic people appropriately, would enhance their confidence to provide such support. Participants also valued tailor-made training for their particular role rather generic training. Particularly paediatricians vent out their frustration of receiving training which is not suitable for their role.

Notwithstanding, the different roles that the three groups of participants have, this study revealed that they agreed on three main areas that would motivate them to attend. The three chosen areas were (i) how to communicate effectively with autistic people (ii) how to adjust their usual working style to support autistic people and (iii) how to have a deeper understanding of the behaviours that present a challenge for professionals, and how to respond to them.

In this study, participants conveyed a very important message to all those involved in the development and delivery of autism training. They requested training providers to understand and consider that they have other topics that they need training on and they also have other personal commitments. Indeed, participants felt irritated when autism was privileged over other topics. Participants were unlikely to attend training during their personal time, and they preferred training to be held during working hours.

Interestingly, the majority of participants in my study were dissatisfied with their current knowledge on autism. This was similar to previous research that was carried out internationally. However, despite their dissatisfaction, they still did not take any initiative to undertake autism training. All the participants were very aware that without autism knowledge they cannot do a good job, because autistic people are part of the

community. A positive aspect that came out of this study is that the majority of the participants believed that their thinking could instigate their motivation to engage in autism training. Another positive point was that participants had a good insight on what the aim of training is and they believed that it is not an automatic medium through which autism knowledge is obtained.

The type of training delivery has a lot of weight on their motivation to engage in autism training. It was very clear that they preferred to be active participants in the training and the majority of the participants were very eager to have autistic people involved in the training. They also showed their preference for face-to-face training rather than digital learning. However, this study showed that teachers and paediatricians were more open and interested to explore the use of the digital media to learn of autism. This could be a result of the changes that the Covid-19 pandemic brought with it.

Insufficient information around autism in the participants' initial training was considered as one of the main barriers for the majority of the participants. This corresponds with various international studies. Furthermore, my study showed that this had a ripple effect on the rest of their career. It was regarded as a dispositional barrier, which set an apathetic scene towards autism.

Another prominent barrier that was discussed was the sense of helplessness that was identified by the majority of the participants. This corresponds with studies that show autism in a negative light and stigmatised. My study found that this helplessness was affecting professionals, instilling in them a sense of reluctancy to engage in autism training since they thought that this was considered a waste of energy. Also, this study

found that their usual immediate reaction when encountering an autistic person was to refer him/her to someone more specialised in the subject. As a result, these professionals who still interacted with autistic people during their work, (e.g. a paediatrician seeing an autistic person with asthma) were not engaging in training on autism. This study also showed that the majority of the participants were of the impression that they do not meet autistic people that often in their work although studies show that it is highly likely that they do.

This study found that in Malta there is a lack of suitable autism training. This corresponds with other international studies. However, since Malta is a very small country perhaps such shortage of training is more intensified. This study also showed that such barrier was affecting the motivation of those who might be interested to engage in autism training. This study also suggests that when developing autism training, one has to understand the local context, which showed that the training culture in Malta is not very strong, so the efforts to motivate professionals to undertake autism training have to be intensified.

The next chapter will present the main conclusions of this study. It will also shed light on the implications of this study's outcomes on practice. Additionally, the next chapter will also discuss the limitations of my study as well as directions for future research.

CHAPTER 7
CONCLUSIONS, LIMITATIONS AND IMPLICATIONS FOR PRACTICE AND RESEARCH

7.1. Introduction

This study explored the main motivators and barriers for paediatricians, teachers and the police to engage in autism training. It also sought to identify the delivery methods participants found most engaging and effective. This chapter presents the main conclusions and the implications for practice and research. Additionally, the study limitations and recommendations for future research will be discussed.

7.2. Main research questions

The three main research questions were as follows:

(i) What motivates paediatricians, mainstream secondary school teachers and police officers in Malta to attend training on autism?

(ii) What form of delivery do they most enjoy and learn from?

(iii) What deters paediatricians, mainstream secondary school teachers and police officers from undertaking autism training?

7.3. Main findings

Through the 162 survey responses and 30 in-depth interviews (10 participants from each profession), this study revealed that the majority of participants believed they had insufficient autism knowledge and recognised the need for more autism training.

Notwithstanding this awareness, the survey revealed that participants were very unlikely to engage in autism training, especially outside working hours. So, professionals might need a motivational push, such as the use of incentives. The findings identified three common training priorities among the majority of participants, namely (i) ideas on how to promote effective communication and interaction with autistic people (ii) how to tailor their practice (i.e. how they can modify their usual style to appropriately support autistic people), and (iii) understanding and responding to behaviour which they found challenging

Participants identified the training methods they found engaging and effective and these included information on practical strategies rather than theories, interactive teaching rather than a passive approach, and simulation-based learning (practise situations similar to real-life experiences in a safe environment through for example role plays) presented in “an entertaining way” as opposed to the frequently used monotonous style.

All participants considered the input from autistic people and their families as highly motivating, with a preference for face-to-face rather than on-line learning. However, this finding might begin to change for teachers and paediatricians, due to the Covid-19 pandemic (as discussed in the previous chapter). Participants also considered the physical environment important for learning, with paediatricians and police opting for training outside their place of work, while teachers preferred to have training at school. The factor most likely to influence their decision to attend autism training (with 65% of the survey respondents giving it a score of 10) was the relevance of the topic to their everyday work.

This study also uncovered a number of barriers to training for these professionals. Seventy-two percent of the survey respondents highlighted their tight work schedules which do not allow much time for training, while 67% reported that they were unaware of existing courses, particularly ones that were useful for their everyday practice. This barrier was also identified in the interviews by most of the participants (6 paediatricians; 8 teachers; 10 police) who commented on the lack of local suitable autism training for these professional groups. Moreover, they reported on their failed attempts to support autistic people which led to a lack of confidence. They felt they should refer autistic people to someone they believed was more specialised than themselves. Yet, as autism is so common and specialists are not plentiful, it is important that most of the workforce develop some understanding of autism. Participants (4 paediatricians; 8 teachers; 10 police) identified an absence of autism information given in their initial training for their lack of motivation and interest to receive autism training throughout their career. This study shed light on the training culture in Malta, where daily work takes the absolute priority, and overshadows the importance of training. Participants identified a sense of procrastination to undertake autism training, admitting that other topics often took priority and autism training was left at the 'back burner'.

7.4. Implications for practice

This section suggests how the findings might be valuable for those in the police, for paediatricians and for teachers in mainstream schools; for those involved in planning and delivering training, for Government policy and for organisations (e.g. NGOs) working in the field of autism. This study identified a number of key messages to help improve the participation of these professionals in autism training. The ultimate aim is

to enhance their motivation and to break down as many barriers as possible to widen participation.

The findings of the study confirm the outcomes of previous studies (Gardner, Campbell and Westdal, 2019 [police]; Suhumaran, Leon and Wong, 2021 [paediatricians]; Wei and Yasmin, 2017 [teachers]), that paediatricians, police and teachers often receive very little or no training on autism throughout their career. So this study was valuable as it sought their perspective on training and what might motivate them to attend. Eight implications for practice were identified and will be discussed in the sections below.

7.4.1. Professionals need incentives to motivate them to engage in training

Professionals need a 'motivational push' to engage in autism training, even when they acknowledge their need for further training. When professionals are given a reason for training (e.g. since autistic people perceive things differently one has to acquire knowledge to be able to provide them with the appropriate support), this is likely to increase the likelihood of their engagement in training. During the interviews of this study, the majority said that the interview had helped them to reflect on the need for autism training. It seemed to make them more aware of the positive impact their autism knowledge might have on the lives of autistic people and their families. Participants said that they were aware of the negative implications of their lack of knowledge but this did not generate a strong desire to actually undertake training to resolve this issue.

This study identified the importance of having different incentives for particular professional groups. For example, paediatricians valued incentives that were linked to career enhancement, such as a point system. On the other hand, both teachers and

the police appreciated incentives such as a decrease in their workload. So, it would be sensible for training providers to work closely with the people responsible for these professional groups on the logistics of how training could be scheduled and recorded to enhance their position at work.

7.4.2. Training content should boost their self-esteem

Participants (7 paediatricians; 5 teachers; 9 police) admitted that they often felt uncomfortable when involved with an autistic person. This implied that training will be more useful if it is designed in a way to boost their confidence and self-esteem. Including success stories in training could be a useful strategy. It is important that training conveys a positive message, such as '*You can do it*!' rather than imply that they have insufficient knowledge to work with autistic people.

Most of the participants (7 paediatricians; 8 teachers; 8 police) said they felt helpless when dealing with autistic people. This perception might prevent them from participating in autism training as they may be in fear of being shown up. So, it is necessary for training providers to understand this and to give participants a psychological boost. For example, training could give them the understanding or the cognitive ability that Jordan (2008) and Milton (2012) insist that non-autistic people need. Again, trainers could give case study examples on how to gain the perspective of autistic people and to respond appropriately.

7.4.3. Training should be relevant to the profession and compulsory

Since all the participants expressed a need for further training in autism then it would be sensible to act quickly on this. Action should include the incentives and motivational push previously mentioned. The professionals interviewed said they would rarely undertake autism training during their own free time. So, perhaps it would be wise for Malta to consider mandatory training in autism for professionals in education, health and social care. In this study, the majority of teachers and police were in favour of mandatory training, but the paediatricians were more sceptical about its effectiveness. Mandatory training could be a step in the right direction, especially in Malta where the culture of training is not very strong. Mandating training would introduce professionals to autism and aim to promote positive attitudes to support autistic people confidently. However, as stated in the UK Government's response to the consultation on learning disability and autism, training for health and care staff (Department of Health and Social Care, 2019, p. 43):

> …without good evaluation it will not be possible to establish that needs are being met, methods of learning are effective, and that positive change is resulting from the training.

Consequently, if Malta is to consider mandatory training on autism, the assessment of its impact should be regularly evaluated. Moreover, the training has to be feasible and cost effective in terms of people's time. An important message from this study was that training should recognise that professionals have other work and family commitments. This was quite a strong message. Indeed, participants reported feeling very irritated when autism was presented as if it was the only priority they had. Their other commitments should be taken into consideration.

The study highlighted that previous autism training, completed by these professionals may not have taken into consideration the context in which these professionals work. Therefore, training providers need to understand well the role and responsibilities of these professionals and what kind of encounters they have with autistic people to make training as interesting and relevant as possible.

7.4.4. Practical strategies should be at the core of training

The findings showed that the content of the training has to focus mainly on practical strategies rather than theories. Participants admitted that very often they found it very hard to transfer the knowledge provided during training to everyday situations.

Simply providing general information on autism is unlikely to be effective. Given the present findings, for every autism training course designed, it is important to include a section on communication and interaction with autistic people, how to tailor their assessment and support, and understanding on how to respond to behaviour which challenges them. With regard to the paediatricians, knowledge on how to support the parents of autistic people would be very helpful, as they found this area very hard to deal with.

7.4.5. Autism training should be presented as a way to enhance their performance on the job

Autism training should be promoted as something that can help these professionals do a better job as participants in this study showed that that was their ultimate target. Also, this is likely to lead to more job satisfaction. The findings suggest that these

participants' impression was that they did not meet autistic people very often. This is unlikely to be the case given the prevalence of autism. So, it is necessary that the training makes professionals more aware that the number of autistic people diagnosed is increasing and the likelihood that they meet them, even without knowing, is very high.

It is also important that training provides a clear picture of the diversity of the autism spectrum and includes practical tips on how to recognise autistic people who do not have intellectual difficulties. It is probable that these autistic people are more independent and spend time in the community unsupervised. It is thus important that professionals are trained on how to recognise and attend to the needs of these people. Through such training, professionals are likely to recognise more the needs of these people and understand the repercussions of misunderstandings that arise from a lack of training.

7.4.6. Use the most effective training methods

The findings indicate that there are certain types of training methods that have the potential to increase the professionals' participation in autism training. It is important to consider these when designing a training programme. For instance, it is important to create an atmosphere where participants can be fully involved in the training. The findings show that the traditional lecture type where participants are passive is not likely to be very effective.

> Compared to their more passive brethren, these active approaches tend to be more effective for adaptive transfer (the application of skills learned in

> training to novel situations), even for trainees of relatively low motivation and ability (Keith, Richer and Naumann, 2010, p. 234).

This links with the argument previously mentioned that participants usually find it very hard to transfer the knowledge obtained in training to real situations.

Input from autistic people and their families was considered the best form of training that helps participants understand autism. Buchan (2020) who is an autistic retired police officer argued that:

> An excellent way of introducing autism awareness to officers would be a training package delivered personally by quality agencies that would enable them to more effectively engage with the vulnerable sections of society they meet on a daily basis. By 'quality training' I mean: training done preferably by autistic people (Buchan, 2020, pp. 16-17).

Furthermore, Debbaudt (2006, p. 266) emphasised the importance of creating opportunities for autistic people to '…interact with law enforcers in a safe, structured, non-threatening, low-anxiety environment'.

Also, this study highlights the importance of not just having autistic people involved in delivering training (as speakers) but having them meaningfully involved in the design of the training. This would be quite challenging for Malta since the little training that has been provided so far, tended to frequently leave out autistic people. My personal experience can vouch for the benefits of involving autistic people in the actual planning of the training as well. In 2016, I was involved in the production of a series of 13 programmes which were broadcast on the National television station with the aim of generating more autism understanding amongst the general public. To my knowledge,

this was the first time that opportunities were given to autistic people not just to share their experience but to be involved in the planning of the programmes, and I believe that their involvement was essential.

Given the findings that training should be fun and not regarded as a punishment, training should incorporate participants' suggestions for delivery methods that are effective. Indeed, a common emphasis was on simulation-based training, which was regarded as a highly effective approach to training. Thus, when preparing training, such an approach should be seriously considered such as, including role-playing exercises and games as these contribute to motivation and learning. This approach would give participants a good opportunity to practise skills in a safe environment. It would also be important to receive feedback following their participation in such activities. The findings show that the physical environment also plays an important role in their motivation and learning. When preparing training for teachers it seems that being held at their place of work is desirable for them. However, this is not the case for paediatricians and police. Indeed, participants showed their preference to have their training outside work so that they can focus more on the learning activity.

7.4.7. A greater use of on-line and digital learning

Although the majority of participants preferred face-to-face training, this study shed light on the importance of giving more attention to online and digital learning. Professionals should become more aware of the advantages of digital learning, especially the police officers who were very resistant to make use of technology to learn on different topics. However, this study indicates that teachers and paediatricians

have already started to feel the need to familiarise more with digital learning and how they can make more use of technology to learn.

As stated in the discussion, this could also be the result of the Covid-19 pandemic, which accelerated the process, perhaps in an abrupt way. Thus, more long-term planning should be done to encourage the use of technology as a more common delivery method, rather than using traditional means. Kirschner and Hendrick (2020) however, refute the idea that children nowadays are 'digital natives' (a term coined by Prensky, 2001, p. 299) and state that: '...there's no evidence that young people today have any special skill...that would allow them to learn differently'.

Such assertion from two leading experts in education implies that it is not enough to say that we should encourage professionals to make use of technology to learn, but it is important to give them the skills to use technology in addition, to learn more about autism.

The present study showed that the majority of participants searched for information on autism on the internet. One teacher said: "...come to think of it, if you have access to Google, which I believe everybody does nowadays, training is not that important anymore" (TM5).

Kirschner and Hendrick (2020) describe this reasoning as one of the deadly sins in education. So, training that includes the skill to question the sources of the information is important. Kirschner and Hendrick (2020, p. 300) argue that: '...there's no knowledge

on the internet; only information, of which a great deal is non-information or outright nonsense from questionable sources'.

7.4.8. Initial training should include information on autism

What rapidly became evident in this study was that the professionals' initial training did not prepare them for autism, with too little information or in most cases no information at all. So, initial training needs to be given more weight, and a revamp is required. It would be beneficial for a task force to be established to develop autism content to be included in the initial training for these three groups of professionals.

Organisations working in the field should unite and campaign in favour of including autism as a compulsory aspect of initial training. These organisations could perhaps look into the campaign that was carried out in England by the National Autistic Society and Ambitious about Autism in 2016, to help the Government understand the importance of including content on autism during the Initial Teacher Training for all new teachers. Without appropriate training on autism, it is likely that these professionals may not be well-equipped to support the needs of autistic students. However, firstly, organisations working in the field of autism should believe more in the benefits of training.

As previously mentioned in the Discussion Chapter, the new Maltese National Strategy for Autism does not appear to give enough importance to the training of professionals. This contrasts markedly with the National Strategy for England (published in July 2021, p. 18) where the UK Government will be dedicating '£600,000 of funding for staff autism training and professional development in schools and colleges'. Also, there is a whole

chapter dedicated to improving support within the criminal and youth justice systems. Indeed, the UK Government is committed that in the next five years (2021 - 2026), police officers will be helped to understand autistic people's particular needs and make fair and sensible accommodation to their needs

> …as this is crucial in ensuring autistic people are treated fairly and are appropriately diverted away from the criminal and youth justice systems where possible and appropriate (HM Government, 2021, p. 37).

It would be interesting for the Maltese Government to follow up on the implications and outcomes of these UK initiatives and build the foundations for a training system that works well for Maltese police officers.

7.4.9. Practical guidelines for those developing autism training

The outcomes of this study will serve as useful guidelines to those interested to provide training to various professionals, who do not work directly with autistic people. These results could also instigate a review for those who are already providing autism training for these professionals. Through the results of this study, training providers could gain information about the perceptions of their target audience on autism training and their preference for delivery methods. This could replace the guess work of what might be effective or otherwise for these professionals. The present findings also shed light on what could motivate these professionals to learn more about autism and what barriers are currently block their learning. By means of this information, service providers can have a more comprehensive picture of the professionals' thinking and practice.

These findings will help the MAC, where I work, to set up the foundations for a new department to be established in the near future to design training opportunities for different professionals. The findings will guide the content and the use of appropriate teaching and learning strategies. The MAC will then be in a position to design and deliver engaging and effective training, which will address a national gap. Matthews (2012, p. 48) states that one of the major problems of delivering training is that this is overloaded with content. However, this study helps the training provider to decide what content to include and then 'to ruthlessly cut out everything else'.

7.4.10. Cultivating a stronger training culture in Malta - National standards are required

The findings of this study shed more light on the culture of continuous training in Malta. The overriding feeling amongst these three professionals was that more importance was given to their daily work rather than to training. Indeed, they expressed feelings of guilt if they were to miss their work to attend training. These findings could have implications for the Government as these participants said this culture was being instigated from the top as clearly said by PdM6: "We are continuously pressured from the top to see more patients and obviously to reduce the waiting lists as much as possible".

Thus, it would be very useful if the Government understood and gave more priority to ongoing training through more concrete ways such as, by developing a logistical system that promotes and incentivises training rather than discourages participation in training:

> …sometimes the system is awkward, and to apply for study leave, usually they give you a hard time…I think the system should be more considerate, should facilitate our participation in training, rather the other way round (PdM2).

It is a very good initiative that the Maltese Government has worked on an Early Leaving from Education and Training policy that shows the way forward for the next 10 years (2020-2030) to address this challenge, mainly by stimulating children from a very young age to instil their interest in learning. However, I believe it would be more effective if the Government also included a plan on how to cultivate a training culture amongst teachers and other professionals. The current findings show that this is rather poorly developed amongst teachers. If you have teachers who are stimulated to learn rather than to just teach their subject there would be an automatic, positive effect on their pupils.

Currently, national standards outlining training requirements for professionals in Malta do not exist. The development of such standards would be a good step in the direction of fostering a continuous training culture. In light of the present findings, it would be very useful that standardised training in autism was established. Comprehensive guidelines would be very useful as they would help the professionals to know what is expected of them. Training providers could follow these. The Autism Bill in Malta – Persons within the Autism Spectrum (Empowerment) Act (Laws of Malta, Chapter 557, 2016) and the recent National Autism Strategy (Ministry for Inclusion and Social Wellbeing, 2021) did not provide any guidelines for this, such as the Autism Act Statutory guidance in the UK (Department of Health, 2015) and the Core Capabilities Framework for Supporting Autistic People (Department of Health and Social care, 2019).

7.5. Study limitations and recommendations for future research

The findings of this study should be interpreted with a number of limitations in mind. These limitations will be discussed in the section below. This section will help other researchers to consider such limitations in future research to build on to the conclusions of this study. This section will also highlight recommendations for future research that stem from the present findings.

7.5.1. The survey's response rate was not high

The overall response rate of the survey was 44%. Although Booker et al., (2021, p. 1) emphasised that 'there is no established threshold for defining a high response rate' and although according to a number of scholars (e.g. Sue and Ritter, 2012; Tourangeau and Plewes, 2013) rates such as this study's could be considered within the average, (keeping in mind that the studied populations were not very large), one still needs to recognise that the majority of potential survey respondents (56%) who were invited to participate did not respond. Thus, their views are still not known and they could vary from those who responded. Unfortunately, I could never get the exact reason/s as to why they did not respond. One of the drawbacks was that potential participants could not be encouraged to participate through incentives such as payment, to compensate them. Such measures could be considered for future research which could increase the response rate. If I managed to gather more responses, the ability to draw stronger inferences would have been more likely. Also, the survey length could also be a factor that affected the response rate. Indeed, with hindsight, there were some questions which could have been left out. This would have made the survey shorter, and thus would perhaps have increased the likelihood of

achieving a higher response. Also, the survey had only been tested on 21 individuals and had not been previously administered on a larger scale.

However, interestingly, there are studies that emphasise that the response rate has nothing to do with the quality of the responses (Tourangeau and Bradburn, 2010). Although the response rate was not very high, the survey still obtained a good snapshot of the perceptions of the three groups.

7.5.2. Voluntary participation could have led to potential bias

Another limitation was that there could have been a selection bias due to the reliance on voluntary participation. Although a random sample was selected, it could be that those who responded to the survey were more motivated to engage in autism training and therefore were not fully representative of the three groups of professionals.

On the other hand, although participation in this research was entirely voluntarily, some participants may have felt ‘pressured’ to participate since they were asked directly by their superiors. This ‘pressure’ could have affected the attitude of how they responded – indeed, they might have not responded completely truthfully. This could be more possible in the case of the survey since I did not have any contact with the respondents. However, with regards to the interviews, I made sure that participants were willing to take part and prior to their acceptance I made it very clear that they had every right not to accept my invitation and to withdraw at any time from the study.

7.5.3. Recruitment method for the survey was long and complicated

Another limitation was the recruitment method used to invite participants to take part in the survey. Due to General Data Protection Regulation (GDPR) regulations, I did not have a direct contact with the potential participants but I worked through a third party, that is a key person in every group. Indeed, I had to depend on their good will to work very closely with me to invite the selected participants and send the survey link to his/her colleagues on my behalf. Thus, the selection of participants had to totally depend on the trust of the key people who were in charge. I invested a great deal of time and energy to build a positive rapport with them. Although I believe that in the majority of cases, I managed to build a very positive rapport (and the key people were very engaged in the study), I was aware that there were a few with whom such rapport was not strong enough. Thus, I do not exclude the possibility that some might not have sent the survey link in time or not sent it at all, which could have affected the response rate. Future research must take this into account before the commencement of data collection.

On the other hand, I believe that this limitation was outweighed by this study's strength that potential participants received an email from their superior rather than a complete stranger which could have affected their decision to respond. This was also confirmed by the pilot participants who emphasised that they received a lot of surveys via email and they generally tended not to respond.

7.5.4. The views and experiences of autistic people were absent

The experiences of autistic people and their parents' were not included. Although there were a number of research studies that gathered their views and this study made reference to the main points raised, it would be insightful if future research gathers the views of Maltese autistic people and their families about the points that professionals in this study raised.

To my knowledge, the experience of autistic people's encounters with the three groups of professionals was never explored in Malta. It would be insightful that future research takes into account the involvement of autistic people. It would also be very interesting to gather the views of autistic people working in these professions. Lawson (2021, p. 2423) emphasises that the norm should be guided by the principle of 'nothing about me without me'. Additionally, the input of autistic people in the development of future studies might get clearer results about the negative connotations and stigma that the findings in this study illustrate.

7.5.5. Interview sample size was relatively small

Small sample size per group of the in-depth interviews was another limitation. The findings were not generalisable to all the professionals within the three selected groups. However, my aim was to provide an in-depth understanding of what could motivate professionals to engage in autism training, what training methods could help them more to learn about autism, and what were their current barriers to participate in training.

Furthermore, the sample of participating teachers was restricted to Secondary State schools only (1,717 teachers). It might be useful that further research investigates Church school teachers (1,023 secondary school teachers) and Independent school teachers (361 secondary school teachers) in Malta to explore whether the same themes emerge. In similar vein, the sample of police was conducted at just one police section (i.e. district police). It would be interesting if further research could replicate this study in other police sections, which are also likely to meet autistic people such as traffic police, investigative police - to gain a more representative sample. With regard to paediatricians, the sample included paediatricians specialising in different areas, since this population in Malta is very small. Perhaps, future research would be useful to take a bigger sample to reach as many views as possible.

7.5.6. Three groups of professionals were time consuming

This study included three different groups of professionals which generated a great deal of data, and was thus, very time-consuming to understand and analyse the views of each and every group. However, although it had this limitation, the overall results illustrated a number of common issues between these groups rather than differences. The present findings merit replications with other professionals to see whether these commonalities are also found in other groups as well, and to explore particular differences that might exist in different professions.

7.5.7. Lack of prior research on this topic in Malta

Another limitation was that unfortunately this topic had not yet been studied in Malta and thus there were no published data to refer to. Although this factor strengthened

the study, making it more original and needed as a research area, the review of the literature was mainly based on similar research done internationally. Further research on this area of study is needed to understand more how Maltese professionals could be motivated to learn more on autism and what training deliveries they prefer. Moreover, to learn more how the current barriers to engage in training could be alleviated. Also, since my study showed a lack of available training in Malta, it would be interesting for future studies to investigate whether such a low training uptake is the result of not having enough suitable training and if so, how it could be possible to increase the number of training opportunities in Malta.

7.5.8. How to make better use of digital learning

The present study instigated an interest, to explore whether as a result of Covid-19 pandemic, professionals will be keener to make use of digital learning for training. Although in this study the majority of participants said that they preferred face-to-face training, most of the paediatricians and teachers showed notable interest in the use of digital learning. Thus, it would be interesting if future studies explore how to make better use of digital learning. This might be useful in the light of Moody's prediction that non-traditional education will be essential for economic activity, even after the impact of the pandemic decreases. Since the prediction is that this trend will continue, it would be useful that we have data on how to design digital learning appropriate for particular professions.

7.5.9. Exploring what is causing ‘pressure’ to participate in autism training

One particular finding that emerged from this study was that participants stressed the importance of taking into consideration that they have other topics that required training and they have personal commitments as well. Thus, participants emphasised that they feel annoyed when ‘pressured’ to engage in autism training and especially when autism is privileged over other topics. Thus, it would be insightful if further studies are done to investigate what is causing them pressure (perhaps by looking at the campaigns that are organised by the Government and voluntary organisations) and how the message could be delivered in a better way that motivates them to engage in autism training rather than pressure them.

7.5.10. Possible differences between male and female professionals

The survey showed a difference between males’ and females’ willingness to engage in autism training. (Of the 67 respondents who had attended awareness-training in the last 3 years, 43 (64%) were females, and 24 (36%) were males). However, this was not corroborated by the interview participants. The latter actually emphasised that they did not see any gender difference in the willingness to engage in autism training. Overall, this study did not give a clear result on this matter. So, further research could explore more this potential difference and what might be causing such difference, if it is present. This will help us to understand more what are those elements that could be making one particular gender more willing to learn on autism. I am not aware of any literature examining the latter relationship. However, a recent study by Gardner and Campbell (2020) found a difference between males and females police officers’ behaviour when dealing with autistic people. This study found that when compared to

male officers, females were less likely to use force and handcuffs when dealing with an autistic person. So, this study heightened the interest to know if a difference might also exist in their willingness to attend autism training.

7.5.11. Pilot study to test the introduction of mandatory training in their initial training

At the moment autism training in Malta is not mandatory. The majority of teachers and police in my study believed that mandatory training would be a good solution to tackle the existent lack of autism knowledge amongst professionals. On the other side, the majority of paediatricians disagreed with this opinion. It would be sensible if further research explored those countries that made training around autism mandatory, familiarise with how they did it, maintained it and what impact it had on their daily practice. Indeed, evaluation of the present training is still very lacking internationally. For instance, UK's 2016 introduction of autism in the initial teacher training was discontinued just three years after its introduction. Indeed, in a recent school report published by NAS (2021, p.15) a concern was expressed that SEN and autism were removed again in 2019, and described such move as 'a backwards step'. This report clearly claimed that without the appropriate training for teachers "…a generation of autistic children are being held back from reaching their potential' (p.15). Further studies should include a pilot study in Malta by introducing autism information in the initial training of the two groups that were in favour of mandatory training, that is the teachers and the police, and then evaluate the outcome of such measure.

7.5.12. How to promote autism training in the context of the current training culture in Malta

This study clearly indicated that the challenge for Maltese professionals to engage in training was not solely related to autism. However, this study showed that the general training culture was still very weak in Malta and it was not a priority when compared to other things (such as to support as many people as possible and to expand their services). Thus, it would be interesting if further studies investigate how the Maltese training culture is affecting the professionals' motivation to engage in autism training and what strategies could be used to promote autism training in the context of the current culture.

7.6. End of study reflections

The past years have been characterised by a great deal of thinking on how best to gather the views of the three groups of professionals on autism training, to analyse the issues that were raised and to present these to the reader in a clear way. The original research plan was constantly amended, as a result of my skills' enhancement in research. The Covid-19 pandemic also had an impact on my research as described in the methodology chapter. The past years have not been plain sailing and I faced a number of challenges. However, my main focus remained stable, that of keeping the aim of the study at the core of all the things that I carried out.

The two selected research methods (i.e. the online survey and interviews) helped me to gather the views of the participants about autism training. There were findings where this study corroborated previous findings such as that the three groups of professionals

thought that they did not receive enough autism training throughout their career, and their work overload usually acted as the main barrier to participate in autism training. On the other hand, there were findings which I believe have contributed to this area of study, such as, being aware that you need more training on autism is not enough to motivate you to actually engage in autism training, but professionals needed a 'motivation push' such as the use of incentives. This study also identified a sense of helplessness among professionals to learn more on autism and one of the prominent barriers was the impact that they had very little or no training on autism in their initial training. They said that this absence created an apathy to do something about autism throughout their careers. Interestingly, many of the participants emphasised that they wished to see more autistic people involved in the training, something which the autistic community firmly believes in.

The findings of my study served as a motivator to me because they gave me a good guide on what should be done to engage more professionals in autism training. To my knowledge, until now research studies did not give specific actions that should be taken to motivate more professionals to participate in autism training, and how to alleviate the barriers that are keeping them from undertaking training. Thus, this study is contributing to a knowledge gap that exists in this area. I strongly believe that if people working in the autism field are able to engage more professionals who do not work directly with autistic people in training, we will be making a huge difference in the lives of autistic people and their families. Also, a potential difference in the lives of professionals themselves because as this study clearly showed, when they did not know how to support autistic people appropriately, they felt uncomfortable to support

them and it created more stress on them. Therefore, more studies should be carried out with different professionals to reach as many professionals as possible.

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APPENDICES

Appendix 1. Rationale for the exclusion of studies in the literature search vis-à-vis the Maltese context

Autism research in Malta

Maltese studies about autism training and what motivates or deters Maltese professionals from engaging in autism training were not deliberately excluded. On the contrary, my search included key phrases such as ‘autism training in Malta’, ‘Maltese professionals’ motivation for training’, and ‘what makes autism training difficult to attend in Malta’, among others. However, unfortunately my search resulted in no relevant studies. When I searched for studies in Malta on autism, I found some which were mostly undergraduate theses, on topics such as, the needs and challenges of adults with severe autism (Spiteri, 2019), the lived experiences of friendships of autistic young adults (Micallef, 2019) and, the effects of autism on the parents (Schembri, 2006). I also found some post-graduate theses dealing with subjects like the lived experiences of families with autism (Caruana, 2020) and the role of screen-based media in the development and maintenance of peer relationships in adolescents with and without autism (Zammit, 2018). I found some studies published in Maltese journals, such as, The Malta Medical Journal and the Malta Journal of Health Science. Studies included topics such as the use or misuse of biomedical treatment approaches to autism (Farrugia, 2013), humour and autism (Agius and Levey, 2019) and autism as a hidden disease and the need for increasing awareness (Mubashir, Farrugia, Corretti, *et al*., 2020).

From my literature search it resulted that there is a great lack of autism studies based in Malta that are published in the international peer reviewed journals. Overall, there were none on the training needs or training of professionals. I was very much interested in the current Maltese situation of autism training. This would have allowed me to compare my findings to other Maltese studies. However, unfortunately, this was not possible.

Exclusion and inclusion criteria for the literature review

The original studies in the literature search were included or excluded depending on a variety of factors as has been pointed out in Section 2.7.1. Specifically, studies were included mainly due to four reasons – the nature of the participants (paediatric staff, mainstream teaching staff and police), their sample size (a sample size of at least 10), level of training (introductory and awareness training programmes were prioritised), and characteristics that could make the training interesting and attractive. In addition, the Maltese context was taken into consideration upon deciding which studies to retain or exclude.

The training culture in Malta is not very well established yet. Generally, Maltese professionals do not give great importance to training. Moreover, training opportunities such as conferences on autism are rarely organised in Malta, compared to other countries like the UK and the USA. This is likely to add to the lack of training Maltese professionals engage in. Such phenomena had an impact on my decisions of which studies would be relevant or less applicable to my study.

For instance, studies that focused on intensive and detailed training on autism were excluded. On the other hand, studies that focused on short training sessions and basic autism awareness programmes were considered pertinent. For example, Swanson et al. (2014), which focused on a short training programme for paediatric staff, Giannopoulou et al. (2019), which evaluated the impact of a half-day awareness training, Gardner, Campbell and Wesdal (2019) where the majority of police had not received any training, and Israel et al. (2013) which evaluated a five-hour training programme for police. These were considered appropriate for my study, as they focused on short awareness training, which was regarded relevant to kick-start training in Malta, where very little or no training takes place.

Similarly, studies which did not focus on the initial measures to introduce autism training, but rather focused on strategies to build up on existent forms of training were excluded. On the other hand, studies which focused on challenges and best practices to build autism awareness, such as Kearns, Mitton and Tompkins (2014), studies which evaluated study programmes that aimed to prepare teachers to work with autistic pupils (Busby *et al*., 2012), and others such as Krameddine et al. (2013) which focused on a new training for police and evaluated its results after 6 months, were considered relevant for Malta to gain insight into the characteristics of initial training programmes and their effectiveness. Furthermore, such studies were considered appropriate for Malta, as they provided me with more understanding on what could motivate professionals to take interest in autism training and what could hinder their participation, which was a primary aim of this study.

Also, considering that this was a novel area of study for Malta, and there was a significant lack of information on the training needs of mainstream teachers, paediatricians and police and their perceptions about autistic people, studies which explored these specific groups, such as Crane et al. (2016) and Eadens et al. (2016) were included. These were considered appropriate for this study and for Malta to acquire information on what training strategies could be effective depending on what the same professionals from other countries considered relevant.

Another factor that was considered when deciding which studies to include or exclude during the literature search, was the small size of the population of the Maltese professionals under study. Thus, studies which focused on training programmes which targeted large populations were excluded, and instead, studies that focused on training programmes and their effectiveness were deemed appropriate for Malta if they consisted of small populations, such as Humphrey and Symes (2011) which included 15 teaching assistants, Giannopoulou et al. (2019) which gave awareness training to 67 teacher, and Israel et al. (2013) which evaluated the impact of a 5 hour training on 120 police. The rationale behind such decision was that training strategies that may be effective with small populations, could vary from those that attempt to reach out to a large population size.

Appendix 2. A copy of the online survey

Autism: the development of awareness training

Survey Flow

Standard: Consent form (1 Question)
Standard: Demographic questions (5 Questions)
Standard: Training received in the last 3 years (4 Questions)
Standard: Preferences for training methods and delivery (3 Questions)
Standard: Training on autism (17 Questions)
Standard: Default Block (0 Questions)

Page Break

Start of Block: Consent form

*

Welcome to the research study

Autism: the development of awareness training

Dear Participant,

My name is Melvin Attard and I am a PhD student at the University of Birmingham. I am interested in understanding what are the perspectives of family paediatricians, mainstream secondary school teachers and police officers about autism training. I

plan to explore what motivates or hinders professionals from attending training on autism and which methods they consider effective to learn more about autism.

This study is being carried out under the supervision of Dr Despina Papoudi [redacted] and Dr Glenys Jones [redacted] at the University of Birmingham, in collaboration with the academic Department of Paediatrics at the University of Malta, the Maltese Ministry for Education and the Malta Police Force. I would like to invite you to participate in this research. Your participation will involve the completion of an online survey which will take approximately 10 to 15 minutes. Your participation is entirely voluntary and you do not have to answer every question.

Data obtained from the online survey will be anonymous and used to better understand the most effective ways of how professionals can learn more about autism.

If you have any questions about this study, you may contact me by email on: [redacted]

Thank you for your attention

Consent questions

Please read the following and tick the first six boxes if you agree with each statement, prior to proceeding to the next step:

☐ I have read and understood all the provided details about this study

☐ I understand that my participation in this study is voluntary and it will involve completing an online survey about awareness-raising training

☐ I understand that since the online survey is anonymous, I will not be able to withdraw from participating in this study after submitting my completed survey

☐ I understand that my responses will be confidential and anonymised

☐ I have read and agree with the terms and conditions

☐ Yes I consent to participate in this study

☐ No I do not consent

End of Block: Consent form

Start of Block: Demographic questions

Your details

X→ X→

Q1 Gender

- Male
- Female
- Other
- Prefer not to answer

Q2 Age group

- Less than 20
- 20 – 24
- 25 – 29
- 30 – 34
- 35 - 39
- 40 - 44
- 45 - 49
- 50 - 54
- 55+
- Prefer not to answer

Q3 Profession

- ○ Paediatrician
- ○ Teacher
- ○ Police



Q4 Number of years working in your profession in Malta

_____

End of Block: Demographic questions

Start of Block: Training received in the last 3 years

Training you have received in the last three years

X→

Q5 Have you attended any awareness-raising courses on any topic in the last 3 years?

- ○ Yes
- ○ No

Q6 If YES, what were the topics covered

X→ _____

Q7 If YES, how satisfied were you with the awareness raising that you attended in the last 3 years?

- ○ Very satisfied
- ○ Quite satisfied
- ○ Not very satisfied
- ○ Not at all satisfied

End of Block: Training received in the last 3 years

Start of Block: Preferences for training methods and delivery

The following two questions concern your preferences for training methods and delivery

Q8 Which training methods do you prefer? (rank in order of importance, 1 being the most preferred method and 6 being the least preferred). You can give the same rank to more than one type of delivery.

_____ Half-day workshop

_____ Full day seminar

_____ A leaflet

_____ My own internet searches

_____ Training DVD

_____ Other (please specify)

Q9 Which of the following factors are likely to influence your decision to attend an awareness training course? (Please slide the arrow accordingly)

	Very unlikely 0 1 2 3 4 5 6 7 8 9 10 Very likely
If it is of use to me in my work on a regular basis	
If it enhances my promotion prospects	
If it is held during work time	
If the delivery method suits me	
If it is not too time-consuming	
Location of the event is central and there are parking facilities	
Cost of the training is met by my employer	
If refreshments are provided	
If a certificate of attendance is given	

End of Block: Preferences for training methods and delivery

Start of Block: Training on autism

Questions about awareness training on autism

X→

Q10 Approximate number of autistic children or adults you think you have met in the last 3 years

- None
- 1 to 5
- 6 to 10
- 11 to 20
- more than 20

X→

Q11 Were you given information on autism in your initial training?

- ○ Yes
- ○ No



Q12 If YES how would you describe the information given in your initial training

- ☐ Adequate
- ☐ Too theoretical
- ☐ Not enough
- ☐ Practical
- ☐ Did not cover the whole spectrum
- ☐ Very useful

Q13 On a scale from 0 to 10, how important do you think it is for you to attend training on autism?

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7
- ○ 8
- ○ 9

○ 10

Q14 Please state why you gave this rating

_____

Q15 Have you attended any learning activity about autism (e.g. conference, course, talk) in the last 3 years?

○ Yes

○ No

Q16 If YES, which topics were covered in these learning activities? If NO, go to Question 19

_____

Q17 Overall, how satisfied were you with the awareness-raising on autism that you attended?

- ○ Very satisfied
- ○ Quite satisfied
- ○ Not very satisfied
- ○ Not at all satisfied

Q18 On a scale of 1 to 10, how effective was the training you received about autism in terms of helping you in your everyday practice?

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4

- ○ 5
- ○ 6
- ○ 7
- ○ 8
- ○ 9
- ○ 10

Q19 How much time are you prepared to commit to autism training in the next two years?

- ○ None
- ○ Up to half a day
- ○ 1 to 3 days
- ○ 4 to 10 days

○ 10+ days



Q20 Which of the following factors would motivate you to attend awareness-raising about autism? (Please rank the following factors in order of preference from [1] most motivating to [5] least motivating. You can give the same rank to more than one of these)

_____ To get to know more about autism

_____ If the number of autistic individuals I worked with increased

_____ To discuss the specific challenges I face when dealing with autism in my daily practice

_____ If I had a specific responsibility for autism

_____ Other (please specify)



Q21 What form of training in autism would motivate you most to attend? (Please rank in order of preference, 1 being the most preferred and 7 being the least preferred. You can give the same rank to more than one of these)

_____ Discussions and talks by professionals who specialise in autism

_____ Listening to the personal experiences of people with autism and their family members

_____ Audio-visual material that presents how the autism condition is experienced in everyday life by different people

_____ Question and answer sessions about issues encountered in your daily practice

_____ Short online training that can be completed in your free time

_____ For a professional who specialises in autism to observe my work and give me feedback afterwards

_____ Other (please specify)



Q22 What might deter you from attending autism awareness courses?(Please drag statements to rank in order of preference starting with the most hindering barrier)

_____ Lack of personal interest in autism

_____ Not useful for my job as I never or rarely work with individuals with autism

_____ Already have sufficient knowledge on autism

_____ I follow a very tight work schedule which does not allow much time for training

_____ There are other training courses which are more useful for my daily practice

_____ Would take valuable time away from my main job

_____ Unaware of existing courses

_____ Current courses not relevant

_____ There is enough information in the media

_____ Shortage of staff

_____ Lack of encouragement/support from my superior

_____ Training fees are too high

_____ Other (please specify)



Q23 If you had to design autism training for your profession, which topics would you include (Please rank in order of priority, 1 being high priority and 8 being the least of a priority. You can give the same rank to more than one of these)

_____ How to identify the signs of autism

_____ How to talk to parents of individuals with autism and guide them on how they could support their child better

_____ How to communicate and interact effectively with individuals with autism

_____ How to be able to see the positive abilities of people with autism

_____ Knowledge of the main difficulties in autism

_____ What impact such condition has on the way they see and experience the world around them

_____ What to do when a person with autism exhibits challenging behaviour

_____ Other (please specify)

Q24 Which of these statements best describes you? (Tick only one statement)

○ The professional sector I work in provides training about autism and I feel well informed to address the needs of children or adults with autism in my daily practice

○ The professional sector I work in provides training about autism but I feel that I am not adequately informed to address the needs of children or adults with autism in my daily practice

○ The professional sector I work in does not provide training in autism but I feel well informed to address the needs of children or adults with autism in my daily practice

○ The professional sector I work in does not provide training in autism and I do not feel adequately informed to address the needs of children or adults with autism in my daily practice.

Q25 Do you have any other comments on autism training in Malta or suggestions to make about this?

_____

_____

_____

_____

_____

End of Block: Training on autism

Start of Block: Default Block

Appendix 3. A copy of the interview schedule

Opening comments:

(a) Greet the participant and find a comfortable place without distractions.

(b) Thank the participant for being willing to take part in this follow-up interview to the earlier online survey.

(c) Introduce myself (my academic background, the number of years I have been working in the area, my current role at MAC, and why I chose this topic for my PhD research).

(d) Talk about the main objectives of my research (to listen to the professionals' voices about their perspectives on autism training and what could motivate them to undertake more training, and what are the possible barriers that currently hinder them from attending training).

Check with them: Have you read the information sheet?

Was the information provided clear for you?

(e) Explain how the interview process will work (approximate time, that there's no right or wrong answer, that they can decide not to answer a question, and have the right to withdraw)

Possible questions: What time do we need to finish?

Would it be OK for me to audio-record this interview? (No-one else will listen to this)

Are you happy for me to make a few notes if necessary?

Is there anything else you would like to ask or say?

(f) Assure participant that he/she will remain completely anonymous and their names will not be kept on the records of the interview.

(g) If the participant consents to the interview, ask to sign the consent form

List of key questions:

Introduction

1. How long have you been working in your current role?

(How long have you worked as a paediatrician/teacher/police?)

Initial training

2. How long ago did you do your initial training to become a paediatrician/ teacher/ police officer?

(Were you given any information on autism in your initial training? YES/NO/DK

If **YES** – give brief details;

If **NO** - What information on autism might you have found useful in your initial training?)

Contact with autistic people

3. How often do you have contact with autistic people in your work?

(What type of support or advice do autistic people usually need from you?)

4. Can you describe a situation where you felt ill-equipped to help an autistic person in your work?

(What was most challenging or difficult and why?)

(What action did you take after this episode?)

Knowledge on autism

5. Most survey respondents said they knew little about autism – How would you rate your knowledge on autism on a scale of 1 to 10, where 10 is very knowledgeable.

(What has helped you to obtain your knowledge on autism?)

6. Do you feel the need in your work to improve on your knowledge of autism?

If **YES** – Can you give me the three topics that you would like this to cover?

Why did you choose these topics as your priority?

If **NO** – why is that?

Attending awareness training on autism

7. Have you attended any short courses or awareness training on autism in your career?

If **YES** – how long ago did you do this training?

Which topics were covered?

To what extent did this help you to support autistic people better in your work?

Do you remember what motivated you to go to this training?

What would you have done differently if you were the training provider?

If **NO** – What is holding you back from undertaking autism training?

In those situations where it comes out that the participant undertook one or more courses on autism in the past but stopped attending these courses: Why did you stop going to courses on autism in the past 5 years?

How could we encourage professionals like yourself to keep on going to training?

Barriers to autism awareness training

8. The survey data showed that only a small number of respondents had attended autism training. What do you think might be the main reasons for this?

(Would you tell me more about the barriers that hinder people in your profession from attending autism training)

9. Survey data showed that a key barrier in attending training is having a tight work schedule. How might we enable people to access such training within their heavy workloads?

Motivators to attend autism training

10. What would motivate you to attend autism training?

(Follow-up on the motivators mentioned)

11. The survey showed that women were more likely to attend training than men. What ideas have you about why this might be?

Current courses on autism

12. Are you aware of any recent or current courses on autism? YES/NO

If **YES** – On what topics? and are these of interest to you? Why?

Are you likely to attend? Why?

If **NO** – Do you think that there are enough courses suitable for you?

Useful training they had attended on any topic

13. From all the awareness training that you have attended on any topic in the last 3 years, can you identify one that you found useful? YES/NO/Not attended any

If **YES** – can you give me brief details on this?

Preferred learning format

14. The survey showed that a full day seminar was the most preferred learning format to acquire knowledge on autism. Is this a view you share? YES/NO

If **YES** – why do you think people chose this?

If **NO** – what is your preferred learning format?

15. Where do you prefer to have your training?

Advice to training providers

16. What three pieces of advice would you give to a training provider when designing awareness training on autism for your profession?

Closure:

(a) Ask the participant if he/she would like to add any information about autism training that has not been covered in this interview.

(b) Thank the participant for his/her contribution during the interview and show that this was very helpful and that I am very grateful for giving up his/her time.

(c) Give them the debriefing form.

(d) Remind the participant that if they wish, a flyer with the main findings of this research can be sent to them and check their email address.

Appendix 4. Information sheet and consent forms for the interviews

Participant Information Sheet

(for the in-depth interviews)

Dear Participant,

My name is Melvin Attard and I am a PhD student at the University of Birmingham. I am conducting a study to explore the issues involved in developing awareness-raising training on autism for family paediatricians, mainstream secondary school teachers and police officers in Malta. This study is being carried out under the supervision of Dr Despina Papoudi and Dr Glenys Jones at the University of Birmingham.

I would like to invite you to take part in this research study. Details of the study are given below.

Title:

Exploring the issues in developing awareness training on autism for family paediatricians, mainstream secondary school teachers and community police officers in Malta.

Purpose of the research

Individuals with autism, like everyone else, are continuously meeting various professionals throughout their lives as they will need health assistance, education and

sometimes support from the police. It is argued that this support might be more effective when these professionals are well informed on autism. However, this study recognises that it would be futile to develop awareness-raising training on autism if professionals do not access this or make use of it. Thus, the purpose of this study is to explore the issues in engaging with and in developing awareness training on autism.

I would like to interview 10 individuals from the three professions to gain in-depth information on their experience of autism, their training needs and how best to enhance knowledge of autism within their profession. You are being invited to take part in an interview with the researcher which will take about 45 minutes. Your participation in this study will help guide future training providers who can use the information to develop training materials on autism. Data gathered from the interviews will be anonymised and made available for training providers to develop guidelines on which issues need to be considered when developing awareness training about autism for different professionals.

Your participation in this study

The interview will be video/audio-taped to enable the researcher to transcribe and analyse the responses. The information will be confidential and it will be kept in a safe place during the data analysis process. The recording and transcript will be only used by the researcher and his supervisors. If there is a point where you feel uncomfortable with the recording, you may ask for this to be stopped.

Participation in this study is entirely voluntary and you have the right to choose not to answer all the questions asked. You also have the right to withdraw your data after your interview at any time during the 4 weeks which follow, by contacting the researcher on the email address provided. In the latter eventuality, all information you provide will be destroyed and excluded from this study.

Thank you for taking the time to go through this information sheet. If you agree to take part in this study please read and sign the attached consent form and return it to me. Once I receive the consent form, you will be contacted again to agree on a date and time convenient to you to do the interview.

If you have any questions about this study, you may contact me by email on: [redacted]

Best wishes,

[redacted]

Melvin Attard

Consent form

I _____ have been invited to participate in a research study about the issues involved in developing and delivering awareness-raising training on autism for professionals, conducted by Melvin Attard, a PhD student at the University of Birmingham.

Please tick the box if you agree with each statement below:

I have read and understood all the details in the information sheet. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction ☐

I understand that my participation in this study is voluntary and it will involve an interview with the researcher which will take approximately 45 minutes. I agree to this interview being video/audio-recorded and know that this recording will be used solely to analyse the data for this study. If there are instances where I do not feel comfortable with the recording I have the right to stop the recording ☐

I understand that I have the right to withdraw from this study during the 4 weeks period following the interview, without having to provide a reason for the decision ☐

I understand that although direct quotes from me might be used in this study, my name and other identifying information will not be used ☐

I agree to be a participant in this study ☐

_____ _____

Signature of participant Date



_____

Melvin Attard

PhD student

University of Birmingham



Dr. Despina Papoudi, C.Psychol, AFBPsS

Research supervisor

Lecturer in Autism

Disability Inclusion and Special Needs (DISN)

School of Education

University of Birmingham

www.birmingham.ac.uk/despina-papoudi

Email: [redacted]

Tel: [redacted]

W: www.birmingham.ac.uk/disn

W: www.birmingham.ac.uk/acer

Appendix 5. Transcriber Confidentiality Agreement

Title of the study:

Exploring the issues in developing awareness training on autism for family paediatricians, mainstream secondary school teachers and community police officers in Malta.

By: Melvin Attard, a PhD student under the supervision of Dr Despina Papoudi and Dr Glenys Jones at the University of Birmingham

As a transcriber of this research, I understand that I will be listening to audio/video recordings of confidential interviews. The information shared in these recordings has been willingly revealed by interviewees, who agreed to participate in this research on the condition that their interviews would remain strictly confidential. I understand that I have an important responsibility of honouring this confidentiality agreement.

I agree not to discuss or share any information on these recordings with anyone except the researcher of this study. Violating this agreement and any of the terms detailed below would constitute a serious breach of ethical standards. I confirm that I will strictly adhere to the agreement in full.

I, _____, agree to:

1. Keep all the research information shared with me confidential by not discussing or sharing the content of the interviews in any form or format (e.g. WAV files, CDs, transcripts) with anyone other than the researcher.
2. Keep all research information in any form or format secure while it is in my possession.

3. Return all the research information in any form or format to the researcher when I have completed the transcription tasks.
4. After consulting with the researcher, erase or destroy all research information in any form or format regarding the research project that is not returnable to the researcher (e.g. USBs, information stored on my computer hard drive).

Transcriber:

_____	_____	_____
Name	Signature	Date

Researcher:

_____	_____	_____
Name	Signature	Date

Appendix 6. Three samples of interview transcripts (one from each group)

Interview with a paediatrician

Interview Participant Code: PdF7

Area of interest: Endocrine

Work experience: 6 years

Date of interview: 4 June 2020

Length of interview: 48minutes

Format of interview: Skype

I: *How long have you been working as a peadiatrician?* **PdF7:** I have been a paediatrician for the past six years. I have had exposure to general paediatrics especially at outpatients clinic that's the most area where we encounter children that suffer from autism, or a spectrum of that....at the moment I am more focused on endocrine so I've been not seeing such patients for some time and I mean well, you can find children who suffer from autism in endicrincology too but not that common. When I was in general outpatients, it used to be, I don't know, you would have one patient every three weeks, myself, as in personally, cause there would be other doctors working at the same time, just to give an average... ***I:*** *Were you given any information on autism in your initial training?*	Contact with autistic children

PdF7: Mostly as before entering medicine, so final years before the medical exams sort of we had something of autism. And then the specialty exam of general paediatrics, there was something but there was a small chapter. It wasn't a detailed, it wasn't a topic that you would spend weeks on, nothing at all....just like a few pages and that's it...	Very little autism information in initial training
Personally in the sense that as I see it, you cannot be a specialist on everything. If I want endicrinology, ok I need to know the basics of autism and more than anything, how to deal with a patient who suffers from autism, or their parents, how to relate, but details on how to manage autism, I don't know if it would help be me, because where I'm going isn't leading me to have clinics only on autism and spend the time they need on it. So probabaly I could have had more information, yes, because I think it's very minimal, so what I've been exposed to was quite minimal. So possibly yes, a bit more, yes, but too much detail and then I won't remember it because I don't see the cases every day....no, not too much, maybe a bit more...yes, I'm sure there was room for more.	A need for more autism training
I: *What information on autism might you have found useful in your intial training?*	
PdF7: Like in what they taught us? What else they could have taught us?...in diagnosis, how you would suspect it, I think it was enough. I don't find so much difficulty recognising if this person falls under that spectrum, or at least, you get the hunch that probably he's got or he's going to fall under that spectrum...so that I think was fine the diagnosis...probably communication would be a very important and needed topic for us...ways on how to approach such patients, maybe, it varies obviously it	Communication

depends on their level, but we need to know what comminication style works well with them...also maybe if they gave us some more practical skills rather than knowledge base...practical skills on how to approach patients who suffer from it like....or how to keep them calm...how to not, you know, make them aggitated...maybe that...something more on that... ***I:*** *In the beginning you already made a reference to how often do you have contact with autistic children in your work. Would you tell me a bit more about this contact?* **PdF7:** So this is when I was attached to general paediatric rotation, not when I was speciality paediatrics ok...when it was general paediatrics, we would have one to two outpatients session per week within I would have, I mean I would encounter one patient definately every three weeks if not more. And this is myself I'm telling you, not the whole list of outpatients....we share the load, we're a team of three doctors. I mean I see some, so this is personal. So I would have seen one patient who suffers from autism every three weeks possibly, yes, very easy if not more. ***I:*** *Whar type of support or advice do autistic children usually need from you?* **PdF7:** What they come for? ***I:*** *Yes* **PdF7:** Trying to remember, I mean it varies. I can't remember but it can be something simple, being followed for anemia or iron deficiency or they're not always complex things...sometimes I	More practical skills Contact with autistic children Nutrition problems most frequent

actually, if I remember and recall correctly, usually they would have other syndromes though, not only autism, so it's a bit...but sometimes they come to out-patients just to have things ticked...in the sense 'are you going to that person for...like image they have a heart problem too OK and 'are you going to the cardiologist for that problem', so he's sorting the other problem...'are you going to CDAU or do you see the OT or play therapist'...so it's just like ticking boxes sometimes rather than...and then other problems, nutrition, it's a bit difficult sometimes or especially when they have a restricted diet and they're picky...so that could happen. Even deficiencies, iron deficiencies and things like that, but I can't specifically think about...I don't know, one major thing that they come with cause they vary...because they have other comorbidies as well... ***I:*** *Can you describe a situation where you felt ill-equipped to help an autistic person in your work?* **PdF7:** I can remember a few...usually it boils down to the same problem. How to make the child, how to examine the child and keep her calm, not let them become agitated, and even to sit down on the couch you know...sometimes it's a struggle...these are the things that I'm after in the training. I mean I don't remember anything traumatising that I cannot forget, that was really bad...because usually I adjust. I mean if she's running around, I'll examine her running around...or standing up...you know, I mean I don't know, personally I don't remember any situation that was so bad, like I didn't manage anything...I don't think so...but I don't know, I'm quite calm so I don't...I think it helps when you're calm and you don't panic and I really, really can't remember but I'm sure it's quite frustrating for doctors who maybe are not so calm you know, and yes, this is going to be a	Challenging situations with autistic children

common problem. And then you sort of target the parents and try and get as much information as you can from them...not sure if I was helpful in my answer though...	
I: *Yes, yes it seems that the most challenging is when it comes to examine autistic children...*	
PdF7: The truth is, so we pick up the file from out-patients, OK to see who is next. The truth is that when I read that this child has traits of autism, the reaction is like, Oh no... that's true, it happens, because you know that it's going to take longer, and the conversation that you're going to have with their parents, mostly the parents, or the child, is not going to be a quiet conversation....it might be a quiet conversation, but it might also mean that you might have to multi task, concentrating on what you're asking the parents, what they are telling you, at the same time occupying the child, or giving him something that he can be quiet with sort of, so to speak....I mean you have to be ready for a conversation which is very disruptive...and very like start, stop, start, stop.... so yes, it will take longer... it will take longer...	Uncomfortable with autism
I: *Referring to the survey that I mentioned before, many peaditricians respondents said that they knew little about autism. How would you rate your knowledge on autism on a scale of 1 to 10? 10 is very knowledgeable*	
PdF7: 6....it depends on what type...information...yes 6 I guess...But to be honest with you I cannot say that I'm happy with my knowledge on autism	Unhappy with her autism knowledge

I: *What has helped you to obtain your knowledge on autism that you currently have?* **PdF7:** I think its mostly a combination of what I learnt, what I read before my exams for medical school and for paediatrics general, and exposure to them I think because knowledge, I'm saying, knowledge as in like percentages of multi disciplinary team, how effective each one is, I would tell you zero, I won't know, but how to approach them or how to, or more or less what they need, this multi disciplinary approach and how to relate to them, I think just, you learn a lot just by being with them....you learn a lot of, I don't know how to put it, not scientific knowlege but relation in knowledge, I don't know. So in that aspect I think, quite a lot, because I've been exposed, before I never used to....as a doctor I have been. So that's why I said 6. But if you had to tell me percentages of success if they go to this type of play therapist, or if they have these SLPs, I don't know...I just know that they help, but I don't know those details you know...	Unhappy with her autism knowledge
I: *Do you feel the need in your work to improve on your knowledge of autism?* **PdF7:** At the moment, I feel that knowledge on how to support the parents of autistic chidren is very much lacking and so I feel this area needs to be given more prioirty, something that I really feel the need in the daily work. Indeed, I find it very hard to talk to parents about many of the problems that they share with me me. Perhaps training could give us more knowledge to be able to answer parents' questions and thus will eventually reduce their anxiety by giving them practical advise. If something like this is included in the training I would be very motivated to participate in such training because I know that become more	More training on how to support parents

knowledgeable to support parents believe me that would make a big positive difference on the family. It's not much, it is a type of knowledge, but like more awareness on the parents' relationship with the child....or like how much they have to tolerate in the sense, cause we have to be sensitive to knowing when to ask the parents do you need more support...in the sense because I imagine it can be very tiring...so this sort of awareness that sometimes you are like the link between...so the child is going to CDAU for his therapy, and the mother or the father I don't know, the parents, they might not be, so we have to be sensitve enough to realise listen, these parents are not coping...I mean I guess it's something widespread, even the play therapist can sense that and maybe refer...but maybe we will be too much in a hurry sometimes to see the next case...that I think, I don't know how to explain... Neither will I tell you something like a conference or things like to increase awareness....they help sometimes but the truth is that if your interests are not really in mental health, because sometimes it falls under it...it's not a mental health, but it can fall under such unless it's a specific...I don't know, people might sort of say you know, this is not my field, sort of, and in reality you don't want much detail you just want to know how to relate to them. So it might put them off because there's too much information there, that's too much for them... ***I:*** *Interesting, so this is one of the imporvements that you would like to see in the training's content?*	

PdF7: Yes, yes.... there is definitely room for improvement, I personally feel that I need to receive more training on autism ***I:*** *Can you give me the three topics that you would like training to cover?* **PdF7:** How to relate to them is important, definately, because even if we are not solving or dealing with a problem weekly, because outpatients will be like once every six months or once a year or less sometimes, so we don't, not all of them get frequent visits to us. So the fact that you're not going into their actual problem, the multi disciplinary team approach from the sense of play therapy and things like that, the most important I feel, is that we are like knowledgeable on how to relate to them, to know what frustrates them and what doesn't frustrate them, so that is the first thing. Something else that we should learn about...is how to adapt our style to children with autism, I guess we need to learn more about their difficulties and how the impact is on everyday life. Aslo, I think it would be beneficial to know what is done like in their multidisiplinary approach sort of what helps them mostly...I know we are not going to do it ourselves, but it's good to know sort of what is happening behind the scenes, so to speak. And the third one, about their behaviour, which I already said it's always a big issue for us. Very often we don't understand their behaviour and personally I feel very anxous, although I said I'm very calm but the thing that I simply don't know how to calm them down, how to talk to them in a way that they understand me and I understand them, you know...so yes another topic would be understading their behaviour to include in the training, especially	A need for more training More interaction with autistic children How to deal with autistic people Understanding their behaviour

behaviour where sometimes they are aggressive, how do you deal with him during such behaviour. ***I:*** *Have you attended any training on autism in your career?*	
PdF7: I don't think specific on autism, but if I'm not mistaken, of ACEM...they had like, they had a conference...They have conferences often but this was quite a few years ago and there was something on autism which I attended and I remember but not a conference on autism only...	Never attended specific training on autism
I: *What is holding you back from undertaking autism training?*	
PdF7: I think it's the same thing...in the sense that not I don't want to know about autism right now, but I mean the day is what it is and the time is short and I just accept the fact that I cannot know everything about everything. I know that I need to learn more on autism...believe me it's on my mind but it's not a priority to do it now because now I have other things...I just have to know who to refer to and know a lot about what I want...my speciality...other than that, I mean, there's so many other things and too little time in the sense to have a balanced life...I don't know, this is how I am thinking. I'm not saying it's the right thing, but I feel that yes, it would help to know more about autism, but I don't feel at this point in time, that it is crucial for me because I am going to be seeing them day in day out and sort of their well-being depends on me...so the thing is that I keep postponing! I don't feel that way...I feel that at this point, I have safe tools to work with in the sense awareness and these things. I think they're safe...there is much more to do yes, I admit, but I also	Procrastination

have much more to do on other things you know...speciality training so it takes preference...in that sense. ***I:*** *Do you think that mandatory training should be the solution?* **PdF7:** No, I don't think that mandatory training should be a solution...I don't think that would be a good strategy...I don't believe that forcing adults to learn about something will work but the individual has to be deep down convinced that he or she needs to learn. ***I:*** *The survey showed that only a small number of peadiatricians had attended autism training. What do you think might be the main reasons for this?* **PdF7:** Also maybe, you know that reaction I told you, you get a file and someone with autism....like this feeling of they're too complex and maybe difficult to deal with and maybe you don't always get black on white results in the sense....maybe the topic is not a favourite topic, because I don't know, you don't treat A and the result is B, you have to keep on over a lot of time, and sometimes see very small changes which you might not even see at a point, I don't know....it varies eh... so I think it's a bit, as a topic, it can be a bit disheartening...It seems that although we try hard to interact with them and understand them, deep down you feel you're not succeeding and personally very often I feel that there's nothing I can do...like nothing works...I know I'm sounding very blunt, cause these are patients with families and I don't want to mention that with anyone,...I would never say that to a patient, or a parent, or a caregiver because obviously you hope for the best and you try and try and make them reach their maximum potential, so I understand that but the truth is, you	Mandatory training Uncomfortable with autism (no cure) Helplessness

don't give a medicine and definately it's going to work...so I think deep down, that as a condition it doesn't give you that satisfaction maybe, I don't know, but maybe this feeling, it's in other doctors, I don't know... that sort of it's not something like ah yes, let's go and learn about that, I'm curious....no, you know...So I think, maybe it's even more than the thing about time, maybe it's just, you know, and maybe what we have to work on is getting away from this feeling of you can't treat it, but you can do much of a difference, even if you don't see a result. You're still supporting....maybe we have to look at it differently... Thinking about it, there are many conditions that we never actually treat, but we control you know. Someone who suffers from high blood pressure is given medication but you don't cure it, you're just helping him...but you see the result...you see the blood pressure coming good...how can I put it....in the sense I think it does have a role the way we are trained, sort of scientifically to see results...having said that, there was a lot of training also, a lot of awareness on how you feel with the patients, making a difference for them, communication is very important for them, so we're also, you know...there was a lot of behavioural skills sort of that they used to teach us so...not on autism specifically, but the way you look at a patient holistically, it's not just the signs that you have to look for, you have to see their way of life, their quality of life...it's not just you have a problem and that's it...so there was that, I remember. Maybe not a lot of it, because at the end of the day you have to study a lot of other things...so I cannot say only the way that they're training us to set our minds there, it's not their fault. I think then it's an individual awareness that you have to develop sort of, it has to come from you that you say, no, I have to know more about	Uncomfortable with autism (no cure)

these patients because I will encounter them during my clinic so... ***I:*** *Survey data showed that a key barrier in attending training is having a tight work schedule. How might we enable people to access such training within their heavy workloads?* **PdF7:** So we have study leave...so we are busy yes...there are busy days and there are calm days let's face it I mean... it's not always busy every single day, it depends...when its your duty, you have afternoon clinic, so...it's not impossible to make a little bit of time for a topic which is not your specialty, no, it's not impossible. So that's 1. They do give us study leave so you can always apply for study leave but many times study leave, for courses and things like that, they give it a priority in paediatrics sort of. If you, when it comes to leave, study leave, they give it a priority over vacation leave. So in that respect, they do give us space to learn, but when you asked me do you there's enough like research in our system sort of or more clinics, then I'll tell you definately more clinics...I don't know but I form part of Young European Academy of Paediatrics and we have meetings online with different representatives of different countries and from the gist that I get sometimes, they have more space for research....and sometimes they are doing only research for some time...and only a few clinics. In Malta I don't know if we can ever do that...we're not doing it...I feel training and research are not a priority yet. ***I:*** *Do you think this is something related to Malta specifically? Would you tell me more about your views about our training culture?*	Training culture in Malta is not strong

PdF7: Could it be because there is just one hospital, one main hospital...You have to give the service...the service has to be 100 per cent because of the people working there...so if you have lack of staff, how are you going to run it?...You have to have people, to move people around...ok you have a month's study, or you can focus on something else...you have to have enough people and even though there are always new people coming in, because there are new trainees, every year we get new trainees paediatrics, there are also doctors that leave...once they finish, sometimes they go privately. So there is influx and eflux too, and if you don't have a good pool to work, I mean you can't be so flexible...and patients are always there...they're not going to...I mean apart from this pandemic where the numbers decrease in the clinic, otherwise always there...So I think it is a bit of a mentality but it is also a bit of a limitation because you need work force sort of. ***I:*** *The survey showed that women were more likely to attend training than men. What ideas have you about why this might be?* **PdF7:** Although I'm not surprised about the comments...I'm not surprised with the result...I'm laughing because there's a colleague and every time there's something like mental health or...no, that's not for me...but it's funny because he's a very good doctor, one of the best...but it's just, that's why I'm laughing...I don't know why...I don't know...the nature how we are, I guess we're more empathic...I mean even me, I'm empathic, it depends on...I don't know...I mean they're kind eh most times, but I can see maybe we see it more like a motherly...we look at the relationship of the mother like, or the father, like having to have so much solutions....I don't know...we're softer hearter...I	

don't know...I don't know why it's like that! However, in reality I don't see any clear difference with regards to the willigness to participate in training. I can't see anything really obvious that's so different in our motivation to learn.	No difference between male's and female's willingness to undertake autism training
I: *Good, perhaps you would tell me more on what motivates you to attend autism training?*	
PdF7: OK....something that would attract me to learn...I think some sessions, or some tips on how to get their attention, how to deal with children with autism, like actual practical tips, tipo that...what we really need is training which is practical.	More practical skills
And I remember one, it was good, this is one of the ACAM conferences definately, there was a child who is now in her late teens, and she had autism but she mastered it. Sort of, she actually, it was a success story...we as humans, we are hard-wired to relate to these stories...it wasn't severe, definately not severe, but she gave a speech...OK you could notice that she had like, I mean there were some problems of communication...she overcame them and she was speaking about how she improved. So when we have personal stories, even if a parent is speaking or a professional like us who shares a story of success, I think they touch the heart more. So it's like you're learning for this cause, you know, you can actually...So when there are actual testimonials sort of, it would help.	Success stories Input from autistic people and/their parents Success stories
Let me tell you can I answer another question. What would not help to motivate and what I think sometimes puts off people from wanting to know why... I don't know if its the next question but I think it's interesting to answer...	

So many times, when there are such conferences, they go, so they target not only doctors, they target health care professionals ok...and so a lot of the sessions sometimes are more on another, they focus more on say play therapy and they go in a lot of detail because obvioulsly there are other therapists there. And for us, it might contradict what I said before because I said I'd like to know what they do more or less, but and then sometimes they go to a lot of detail that you start getting frustrated and start saying but I really don't need to know all that much. And so you're sitting down for so much hours in a conference room hearing things that maybe are too detailed, and not relevant for your work after all...I mean I know the patient is still the same, and you have to know, I'm not trying to down play anything else, but maybe more focused for doctors like...it's difficult because resources are what they are but I think that's what puts off a lot of doctors from attending conferences in that way...not because we don't want to hear anything from, what OTs do...nothing at all, tipo I like to know these things, but then sometimes they go into a lot of detail. Or like they're, like a bit tedious maybe, maybe...I don't know...I'm being very honest, but not because I'm not interested, it's just sometimes it's so much. It could be any other topic...For me, it's...so I think that might change the...like if its targeted for doctors, it motivates more. ***I:*** *Are you aware of any recent or current courses on autism?* **PdF7:** No, I'm not aware ***I:*** *From all the training that you have attended on any topic in the last three years, can you mention one that you found very useful?*	Tailor-made training Not aware of available autism training

PdF7: One of the most effective couses was one before the final exam of paediatrics where they prepare you for the clinical exam. So it's a clinical scenario. Basically there are stations and you actually to from one patient to another, ask questions, they put you on the spot, then they teach you after... and I learnt a lot because mostly you are actually put in the scenario. When training presents real situations, you can learn a lot…And you learn because it remains imprinted, sort of. Even the tips that they give you after. You really remember them much more than if I had to watch a lecture or read, much more definitely. You need to act and someone is going to tell you how you acted...and like, someone is looking at you and he's telling you OK, next time do this this way, and this one you could have done better, or this one you really did well in that section but then you sort of...so when you have hands on sort of opportunities, and someone is observing and tells you ok so the pros and the cons, then I think you learnt most...And you learn because it remains imprinted sort of. Even the tips that they give you after. You really remember them much more than if I had to watch a lecture or read, much more definately...and I remember the scenarios, I remember....and this was, I mean the topics would have been general because obviously it's a general exam and you have different stations on different things...development, milestones you know...but that, by far is the best teaching I think...when you're on the spot and you make mistakes. But it doesn't matter you'll remember the mistakes.... I don't have a great memory but what I study today I'm quite sure I'm going to forget again...I have to read it again... I don't think re-assessing is harmful. But, we need it...this is like a continuous thing. If you're not exposed to autism so much, and you're not exposed, you're going to forget what you learnt after a few, I	Simulation-based learning Simulation-based learning

don't know, years at least. So it's not harmful. If you don't work with something, you're going to forget it. If you work with it every day, you'll remember it. It's fine...the older generation, most probably they wouldn't like being on the spot. ***I:*** *With regards to the most preferred learning format to obtain autism knowledge paediatricians respondents in the survey chose a full day seminar. Is this a view that you share?* **PdF7:** I think, but this is just a hinge that I get, I think it should be concise in the sense maybe a morning not a whole day. Remember, we don't have autism only on our mind...training has to be short, including only the information that is needed for our work...the target it has to be for doctors, for it to be successful for doctors. and possibly like an actual what I mentioned before, like a testimonial – like saying what helped her, what didn't help when the doctor saw her child, something like that...but not a whole day...for most of us, it's not a topic that we it's not a priority, not not a priority, it sound bad but unless you want community, sort of, a few of us do want community, but there are like 2 or 3 you know, the other trainees have different, they might want other specialties you know... so too long and then, when it's so specific, I think it would be better to have a morning, like not a whole day and more specific for us. ***I:*** *To conclude, what advice would you give to a training provider when designing awareness training on autism for peadiatricians?...perhaps you can give me three pieces of advice* **PdF7:** When you're advertising or whatever, proposing a lecture or a seminar or anything, it has to be something targeted for	Concise

doctors. I think that's the way forward because unfortunately, the type of lectures have to be in a way, sort of tips on how to deal with autistic patients in a normal clinic or something practical to get their attention...so yes titles and headings are very important – that's something to keep in mind.Enough detail but not too much, sort of things that are actually going to help us, not excessive detail you know...not in so much depth about some things that might not be necessary. We won't be doing ourselves but it's important that we know it's being done, something like that. And maybe at what stages, perhaps in training will you offer it...I mean it should be offered, I mean if something is going to be organised, it should be open to everyone...I don't know what else – I don't know if you can make scenario – it's difficult, you're not going to get a patient and make a scenario but possibly what could happen, I'm not sure, even because of ethics and all that, but you make a scenario maybe on a video and you cover their faces and you see what went wrong with it...so you know you ask the doctors, ah he could have done that differently not to agitate the patient...I don't know these... and then you have a lot of ethics u hekk because you show a video, you have to hide identity...It could help because seeing it from an outside, looking into the box and seeing what's happening, sometimes makes you judge what is correct or not because putting us on the spot is difficult because, how are you going to do that?...you have to know when the patients are coming, and someone has to give you feedback, it's difficult to organise...but if we had to observe someone else, and see what went wrong, it might be helpful...	Concise Simulation-based learning

I: *Would you like to add anything about autism training for peadiatricians that has not been covered in this interview?* **PdF7:** Probably the most important is when to recognise and the importance of early recognition and where to....I mean as I know it, I send a referral ticket usually, I mean the few times I had, to CDAU. That's what my normal approach is...I don't know if there are other methods or I don't know, like early identification, recognition and what to do in those situations sort of...I don't know other things...then the other things we mentioned...sort of skills on how to relate to and more awareness on the parents needing support and who to go to, because if there are organisations that can actually support the parents specifically on autism, sort of, we can refer there. So these things, these practical things you know...I can't say that autism is not part of my training plan…but since we tend to give priority to other areas, we can fall victims to procrastination, which has the power to halt our decision to attend autism training.	Procrastination

Interview with a teacher

Interview Participant Code: TF4

Subject: Maltese

Work experience: 18 years

Date of interview: 24 March 2020

Length of interview: 44minutes

Format of interview: Skype

I: *How long have you been teaching? And can you tell me something about your current role such as what subject do you teach etc, so I can build a background picture about you.* **TF4:** I have been teaching for quite some time, I started teaching 18 years ago. I stopped teaching for some time to take care of my children, however, I obviously stayed involved in the education sector, this means that although obviously I was not teaching in class I never lost contact with the education sector, I kept myself up to date. I teach in a mainstream secondary school, so I obviously meet students with different characters, different abilities, so I teach every scholastic year and I usually teach around 120 students, so I come across quite a lot.... something about me, I am a very dedicated person, so anything I do I try to do it the right way, I do my work carefully, I am a perfectionist, I am careful to do everything the right way, perfectly, sometimes a bit too much...as I told you I am conservative, traditional, I love my family, so I am also a	

dedicated mummy, so I have the dilemma of being a perfectionist both as a professional as well as a parent. I don't know what else I can tell you .... ***I:*** *And the subject that you teach?* **TF4:** I teach Maltese....one of the main subjects ***I:*** *When you started your initial training to become a teacher, do you remember if you were given any information about autism?* **TF4:** Not at all, no, not at all.... at University we had no idea at all about it...in class you start meeting different students and with experience you start realising what type of students they are...obviously then you start taking an interest yourself, you start seeing their reports, and obviously you start realising what conditions the students have, some have one type and others are another type...but focusing on autism unfortunately our initial training didn't include anything on autism...so we were not prepared ***I:*** *And now if you look back at your initial training, now that you have the experience, a lot of years of experience, what would you do for new teachers regarding autism?* **TF4:** Yes I believe that teachers should have training. To be honest, I don't know if they do have training now, I don't know, maybe LSEs get that type of training...I don't know if teachers have a repertoire in this area but yes, I believe that they should have...and even us teachers who have been teaching for some time should have, we should be informed about the condition...I consider initial training as very important to set the ball rolling	No autism information in initial training

and create an interest in autism. Not including autism would be sending the mesage that information on autism is not necessary for our teaching role and we all know that this is not true. ***I:*** *What information on autism might you have found useful in your initial training?* **TF4:** I would try more, if the other children are conscious about children that have autism but I would try to involve them more rather than take them out of class...at the beginning of my career there was a period where they would form an integral part of the class with the LSE near them. But in the past few years, I am realising that they are taken out of class more...obviously it could be that the noisy environment in the class is bothering them and also obviously it depends on the type of autism that the students have...we are talking about instances where there is severe autism and then there is the autism that is subtle and doesn't show and in this case they stay in class...but maybe the ones that are severe...I would at least leave them for the first 15 minutes, 20 minutes for them to get a feel of the class...so I consider this training as very important to learn how to communicate with these students, because sometimes I really feel blank when I come to give them instructions and if we have training about this we would be able to include them more in the class life. ***I:*** *So in the initial training this is what you would emphasise on, that they can be more part of the class...am I underdstanding correctly?* **TF4:** Yes and even the fact that they have, it's difficult to say, but if they are verbal, we try and encourage them to say even a	No autism information in initial training Communication

few words, I am referring to the ones that are severe because I even teach students with autism who try to keep up with the others... ***I:*** *Good and how often do you have contact with autistic pupils as a teacher?* **TF4:** So, when you say autism you mean autism in general? ***I:*** *Yes I mean all the spectrum* **TF4:** I have someone every year....yes every year for sure...maybe they would not be diagnosed but I notice that they have traits...so I realise that it's there...even from the the way the look, their speech, with me as a teacher, I realise...every year I there's someone. There won't be a big number, but there will be one or two. ***I:*** *And what type of support or advice do autistic students usually need from you as a teacher?* **TF4:** Let me tell you what I do...I like going round the students, I mean they need that one-to-one contact so I go near them, you give them more attention than you give the others, they have more guidance, you address what they are not focused on and get their attention, so in the class environment, you give individual attention, because obviously, everyone likes individual attention, obviously these students would need it more because they feel like there is someone who cares...but obviously on the other hand you can't make it that obvious so you don't embarrass them in front of their friends...and sometimes you need help what to say and how to act because	Contact with autistic children

it's useless that I'm willing to give them my time but I wouldn't have a clue what is best way to deal with them. ***I:*** *And can you describe a situation where you felt you do not have enough knowledge to help an autistic student?* **TF4:** I can tell you that to date I do not have enough knowledge because as we said in the beginning we never had training, we were never exposed to these type of courses that address more this type of sector. What I can tell you is that at the beginning of my career, I'm saying around 14 years ago when I used to hear for example children with severe autism shouting in class, I mean there would be silence and they start shouting...it is because they are uncomfortable. At that time yes, I would not know how to react because I would not want to cause them more discomfort, very often I feel scared...I am scared because I don't feel well prepared for them unfortunately…before I do something with them I always question myself is this the right thing to do? and very often because of these doubts I end up doing nothing. That's why I want to tell you once more that I agree that there should be more knowledge about autism, because even for me when I'm in a situation that I don't know how I should act, it's frustrating and very uncomfortable. ***I:*** *And do you remember about a challenge in particular that you encountered in class that you did not forget about?* **TF4:** At the beginning of my career I had a student, he had very severe autism, he used to shout a lot, he used to hum loudly all the time, so you are trying to explain the lesson and he is shouting louder than you. And the other students, although they were conscious about their friend in class, I used to try to raise	Challenging situations with autistic children Uncomfortable with autism A need for more training Challenging situations with autistic children

my voice louder than him so that they could hear me. That is a situation that stuck to my head from the start of my career. ***I:*** *And do you remember if you took any action following this particular experience?* **TF4:** Let me tell you, yes, I remember I used to talk to his LSE and in fact we had come to an agreement where when she saw the noise getting too loud she used to take him out of class. But not in a way that is was a punishment, she just takes him outside until he calms down a bit. This used to happen especially when we had an activity in class where the students were obviously being more noisy...and the noise used to bother him more. I wish that I received some training on how to deal with autistic students. Because I still find their behaviour very challenging, although as time went by I get used to certain behaviours, deep down I still feel very uncomfortable. ***I:*** *As I told you in the beginning, I did a survey in the beginning of this study even amongst teachers and they said, the majority of the teachers, that they do not have enough knowledge, as you said and confirmed, about the condition of autism. On a scale of 1 to 10, how would you rate your knowledge on autism?* **TF4:** I think I will try and scale between 1 and 5...I don't have a lot....what I have is my own knowledge, being I took the interest, because you see them in your every day life and now that I am a parent, you even see them at the swings these type of children so you start analysing and you say this one...knowledge I would say 3..4, and I feel very sad that as a teacher I don't have enough knowledge to help autistic pupils in my class, by understanding them more and being there to address their	A need for more training Uncomfortable with autism Unhappy with her autism knowledge

needs and adopt an inclusive approach so that they can form part of the class ***I:*** *What has helped you to obtain this knowledge on autism?* **TF4:** I gained the knowledge from school as a teacher, from experience you start studying the student, you talk to the LSE, sometimes to talk to the LSEs because they have more knowledge since they are obviously responsible for the student or the individual, they tell you themselves. I also gained the knowledge because I did some research myself about autism, and as well as I said from my personal life .... for example I take my children to the swings and I notice that there are children who are different...I don't really want to say the word different because they are not different, they are like us after all, but you notice that their behaviour is, different from other children's....in fact, even my own children notice these students sometimes..although they are still children, they tell me he is acting like that..... ***I:*** *So you are clearly saying that knowledge about autism should be improved in you as a teacher. Would you tell me more on perhaps on three topics that you would like training to cover?* **TF4:** Training, as we're saying, the first thing is for the teacher to know what autism is and the different types of autism that exist...but one of the most impotant things is to learn how to communicate with them so that we can include them more in the class. The second important thing is for us to know how we should act with them...I mean what we can tollerate, what we shouldn't	Communication

tollerate...about their behaviour. When we should control them and when we shouldn't for example...and obviously training to maybe start integrating them more in class...personally I believe that when there is the need and you take them out of class you are helping them because they have a break....I think sometimes they need to get used to the environment because when they leave the school they are in a different environment, noisy....for example they are 16 years old, they left, they spent all their school years having pullouts, from class, and then once they face reality, the reality after they are 16, they are going to come across all the noise... at home, in their public life, if they are going out with friends, maybe they socialise a bit more.....and maybe we also have knowledge, because I also had older students who I saw privately, I had students with autism....obviously one of the conditions is that they do not have eye contact, they look a little...for example I would give training to try and get them to move gradually to the reality that conversation is an every day thing....maybe there is that little eye contact. It's difficult, it's easy to say it but obviously it is difficult for them but I don't know if any there is any training on this, I am telling you because I honestly don't know, if they need to socialise more because they need some sort of socialisation...I don't know if this was of any help... I always say I don't look up to my nose, I always look broader, so when these students, that are students for us, children as well, leave secondary school, they will move on to sixth form, so they will be amongst more people. Even if they do not move on to sixth form, they move into work, if people in general are not knowlegable about autism, they will immediately label them so they will be on their own even more...so what can we do...if society is not that aware about the condition, we need to train	Understanding their behaviour

them too, the student himself who has autism, maybe don't look at length at the individual, but maybe that little bit, that little contact is enough. So you try to prepare him for the real world, work and day to day life. I do try to help them but as I'm telling you my actions depend on my very limited knowledge so sometimes it's more by trail and error...unfortunately most of my attempts don't seem to work with autistic children and to be honest I feel very down and it does affect my motivation to do something...even to attend training...I need to believe more that training can help me in this. ***I:*** *In the beginning you told me that you never received any training on autism. What is holding you back from undertaking autism training?* **TF4:** No...no I never received training on autism, I researched myself, because I always took an interest, from the internet...and I also listened to some interviews with parents of children with autism...Time I think is the main barrier...I don't have free time...another thing is that I don't know if there are any courses related to autism...I believe that if at the beginning of the scholastic year, on our teachers' days, maybe there would be an hour, 2 hours where instead of wasting time we have a short course on autism. This year you're going to teach three students with autism so how should you act with them...or how should you address the other students on how they should act with them...because a lot of students end up labelling them...Something else which bothers me a lot is that at the beginning of the scholastic year we wouldn't know that we'll be teaching an autistic pupil. Then, around October, November we are sent a report about the students and their conditions. But we would have already started the scholastic year. Let's say for	Helplessness Never attended specific training on autism

example Mark has autism... obviously it is up to me to know what autism is. To tell you the truth there would be other conditions that I have never heard of and I would just have the name of the condition, and then I start researching or I take an interest in knowing what that condition is. ***I:*** *And what motivates you most about attending a course on autism? For example if I had to tell you I need to know from the teachers what I can do to motivate teachers more to attend a course or to have more knowledge about autism* **TF4:** Personally, what motivates me most to choose autism training is to learn how to communicate with these children…I feel very sad that I don't feel comfortable communicating with autistic pupils…personally this is something that saddens me most because one of the satisfactions in our work is talking with the children. Also the training first and foremost needs to be held during working hours because every one has their personal life after work. It is important to say that there is no need for the course to take long to give some knowledge because you have to keep in mind that we have other commitments as well...and this is very important because these cannot be ignored. What motivates me is the fact that since I am going to be exposed to these type of students then I should know something about this condition. That is what motivates me. When I was at home, I can also relate this to my personal life, in the beginning when my own children were born, as I said, I used to reseach myself so obviously you are conscious and you say look, all right, the	Communication During working hours Concise

children, especially the boys, have a chance of having autism, so sometimes I used to research myself to notice traits that my own children had and come to the conclusion if they are autistic or not. You're understanding me? That's what I can tell you.... ***I:*** *Good, yes I understood you. Let me refer to the survey again, the majority said that they didn't attend, never attended any training about autism. What do you think might be the main reasons for this?*	
TF4: No one ever gave it importance I mean in the scope of the school no one ever told us, listen, let's do a course about autism. What I can tell you to be fair maybe this type of course was held for the LSEs who have more direct contact with the student, that's what I can think of, I am assuming that is the reason we were never given training about autism...However, I don't agree with the idea that autistic studnets belong to their LSEs because at the end of the day we, the teacher is responsible of the student and not the LSEs. Once I am responsible, the LSE is there to help but finally I am responsible because he is a student, part of my class. So yes we should be given training not solely about autism but on all other conditions too. ***I:*** *Would you tell me more about the barriers that hinder teachers from attending autism training?*	No enough importance is given to autism
TF4: Let me tell you, there are so many changes in the education system taking place that obviously there are other priorities in other areas. So there are a number of hours allocated in our scholastic year that we can dedicate for courses... apart from that, the head of school doesn't send everyone for these course, it is impossible for everyone to leave	No enough importance is given to autism

to attend these courses. So if these courses had to be held, the only way that they can be held, is for the courses to be held in summer, on a voluntary basis, so like the courses are being held, for example you can choose one of these dates, but during the year, because of the limited number of hours allocated for courses, they cannot dedicate a lot of time for it, because on the other hand they are dedicating time for courses, for example, about the changes that is taking place in education, maybe you have heard, or know, that there are a lot of changes taking place in the education system...the syllabus, the way we are assessing students, so that is a priority that we need to be trained on. ***I:*** *And about what you told me that maybe you would do the course on a voluntary basis, knowing your colleagues, what do you think the attendance would be like?...You think there are people who would be willing to attend these courses on a voluntary basis?* **TF4:** Let me be honest with you I don't think there would be a lot...it depends when it is held, because if as I told you it is held in summer and it is held on a voluntary basis one would say no, but if it is held during work hours for example the children are given half a day off, or school finishes at midday and we stay there and attend a 2 hour course, I see that work more and I honestly believe that teachers take a lot of interest about this condition especially the young teacher who are yet to have a family because when it hits you personally, one would be more interested...if I say for example, I am going to become a parent soon, I would be more interested because God forbid I might have autistic children...If I was single and have just started my career, the course would be mandatory, because they are making me attend and I believe that they would find it interesting.	During working hours

And let me tell you why....because at the beginning of this year we had a short course, a speaker came to talk to us about mental health... you'd be amazed how much my colleagues, and even myself, I had already attended similar courses, how interested they were....that's why I'm telling you that if it doesn't take all day because one cannot attend for a full day, but a speaker come and gives an overview about autism for half an hour, 1 hour, 1 and a half hours, we would have already taken an important step to provide more awareness about autism....I would also like to add that maybe the parents should also be given the opportunity of more knowledge about this condition. ***I:*** *Are you saying the parents of students with autism or the whole class?* **TF4:** No, the whole class so that they...moreover I would say not those who have autism...the others... so that they can tell their children listen these children are not different, they are children like you and they do not label them. I had a case myself last year where the student was being labelled. I believe that he is autistic but his friends literally did not involve him, instead they used to label him, therefore I believe that it shows, as a teacher, they should also be made aware of this condition. ***I:*** *I would also like to share with you data that came out of the survey. The teachers respondents said, even other professionals, that one of the barriers as to why they do not attend courses is the time...meaning that they have a very heavy workload, etc....in your opinion, how can we overcome this barrier?*	

TF4: Let me tell you, the only way that you can overcome it, I can tell you that I have a very big workload, as I said I have 120 students, 6 classes, I teach a language as a subject, so it's not like when you teach mathematics or PSCD or PE...I don't think there's anyone with my workload...the only way that you can make the course mandatory is the do it as I told you, the children would finish school at noon, and then the last hour, hour and a half the course is held instead of a lesson and like that no teacher can complain about the workload that they have. Understood? ***I:*** *Yes yes I understood...another interesting fact that came out of the survey was a finding that there was a difference between women and men, that the women respondents were more willing to attend training on autism than men. What ideas have you about why this might be?* **TF4:** If we are talking about gender differences, I don't see any big differences between our willingness to undertake autism training...what I can tell you is that female teachers, you'd tell me we are parents too, probably the majority that would attend are parents. I don't want to disrespect that father figure, but the mother is always more caring than...I repeat I do not want the disrespect the father figure but as women, you know, we are more sensible, more sensitive, and maybe that is the reason and also as I said there would be a number of women who would like to become parents or they are parents and therefore are more interested not only from a professional level but also on a personal level.	During working hours No difference between male's and female's willingness to undertake autism training

I: *I think you also answered this...if you are aware of any courses about autism at present that suit you...* **TF4:** No, no it's a problem that we don't have any training on autism in Malta ***I:*** *And maybe you can elaborate more on what you have already said, what makes a course attractive, I have understood the point that it should be held during school hours, that is when the children have a half day at school, and the rest will be dedicated for training....maybe now you can help me understand more with regards to the content...* **TF4:** The content would be more, we would then become students like the children...so what attracts us most...we shouldn't just be listening because when you just listen, you will see people yawning, disinterested...maybe you could have interviews with parents, I mean you have video clips, maybe there will be an interview with a parent of a child with autism so they would hear it directly from the parent, and maybe also from the children...I mean there would be a video showing the behaviour so that we can understand them better...and perhaps yes that would be useful to have adults talking to us about their experience in school and our teaching style could be adapted to support them more. ***I:*** *And from all the training programmes, not just on autism now, maybe that you have attended on any topic in the last 3 years, can you identify one that you found useful?* **TF4:** The subject, I tell you the subject how it is presented is very important...if it is about mental health, it will relate to everyone.	Not aware of available autism training Input from autistic people and/their parents

When you are relating to a teacher from a personal aspect, he will be interested, he will listen more....don't forget that at the end of the day teachers are also individuals, they go through experiences. When I refferred to the mental health course, we discussed depression, anxiety. Because, I have colleagues who have gone through a depression, so there was more interest. There are the young ones, when I refer to young teachers, I am young, but way younger than me, they have just started their carreer, as I said they have less experience so they are more interested. When you relate to the individual from a personal aspect then yes he will be interested. When I wasn't workin and I was at home, I had attended a course on first aid, because I said why should we also have first aid courses at school....we meet and teach all these children...why shouldn't the Ministry organise first aid courses...we have a lot of shortcomings...I feel that we have always focused more on the education system than health, from anything else...And in both training that I mentioned there was a common aspect that made them very effective for me that of presenting real-life situations and we have to deal with it...I find this as a very effective method especially for us teachers because all the training has to take into consideration the class environment. This is another point that I want to make about training that to be effective it has to be made for us...for the situations that we meet in the classroom...in other words it is useless to provide a training which deals only with for example the traid of impairments in autism and leaving out how we actually deal with an autistic kid in the classroom, keeping in mind his difficulties and all the other demands of the classroom. So, the training has to provide us with practical knowledge, I would be very motivated to attend and even my colleagues for sure because this is something that we really need, when we	Simulation-based learning Tailor-made training More practical skills

have an autistic student in class how do we deal with him or her? You know ***I:*** *Another thing that came out of the survey was that teacher respondents chose a full day seminar as their most preferred learning format to acquire knowledge on autism...is this a view you share?*	
TF4: Instead of being spread over a number of days?...No, I don't agree for sure. When you say full day seminar, as I said, I don't think this would be possible for teachers to spend a full day because as I told you we are allocated a number of hours per year...we have a number of hours for courses....In my opinion I feel that a full day would be too much, because then I would have to make up for the lost day...I need to see how to recover a day's lessons....it is difficult losing a day's lessons...maybe you'd say what's a day, but a day's lessons are a lot....that's why I proposed that it would be held in the last hour for example and the children are given a half day. Apart from this, I think a whole day hearing about autism is too much...I think in the first few hours the individual would be processing the information, but then he will stop processing it...so I believe, like the children, we are not different from the children, you have a number of hours, 1 or 2 hours...if it is held over 3 sessions, it is spread across the scholastic year, you have 2 hours in the first tem, maybe another 2 hours in the second term, it is better than a whole day... that is what I would prefer...	Concise
I: *Where do you prefer to have your training?*	Preference for having training at school
TF4: We love the class atmosphere…we are trained so much that learning could occur best in class and I think we still feel	

more comfortable to have our training in a familiar classroom setting…I believe this could help us learn more easily. So, I definately prefer to have the training in the school...don't forget that schools are very close to our hearts…so I think that it's the place where teachers prefer to learn. Also I prefer the traditional way of learning…I mean I prefer face-to-face learning rather than online. Although at the same time I'm very aware that this has to change gradually and in a way it would be more comfortable I think because life is becoming too hectic and family and othe commitments are never ending so I think the option of online learning should be studied more. ***I:*** *And to close off…what three pieces of advice would you give to a training provider when designing awareness training on autism for teachers?* **TF4:** As I told you first there would be an introduction, awareness, giving information to the audience as to what autism is, explain directly, but then as I said it is the experience that mostly counts that there are video clips of interviews with different parents, maybe even to feel the pain of the parent, videos about the children's behaviours. We need to be exposed to various situations where teachers made success in including autistic children successfully...I would be very easger to hear other teachers who made success, what techniques they used and thier experience you know...then obviously involve the audience, give them an activity during the discussion, with the information that you would have given... ***I:*** *Basically those were my questions, however, I don't know if there is anything else.. if you have training about autism in mind, maybe some other points that we didn't mention during the*	Preference to face-to-face learning Input from autistic people and/their parents Success stories Interactive approach

interview that are important to keep in mind when studing training on autism for teachers. **TF4:** Let me tell you, I think if it is possible, I don't know, that information is given as part of the course at University, a preparatory course for teachers. I mean if it can be done, I don't know if it can, now obviously I'm not involved in university anymore... maybe when the teachers are being trained, they are give a course, maybe even from the psychology department about autism, about all conditions...something introductory... they is no need to go into a lot of detail...why something introductory...because if you start from University, some way or another, word spreads round...I am going to repeat what I told you before, the information that I got was from LSEs and not from teachers...the LSEs end up teaching you, why, because I imagine the LSEs have these type of courses especially if they are taking care of students with autism...	

Interview with a police officer

Interview Participant Code: PM2

District location: Central region

Work experience: 10 years

Date of interview: 15 March 2020

Length of interview: 39minutes

Format of interview: Skype

I: *How long have you been working as a policeman? And perhaps you can tell me something about your current role?* **PM2:** Yes, I've been in the Corp for the past ten years. I am currently stationed in [redacted] [the central of Malta] and my role varies a lot because every day we meet with different cases, which require a lot of thinking because we deal with different characters, all the time. My current role basically involves safeguarding all the citizens in my community, we have to deal with a good number of daily reports and people are constantly coming to the station for one thing or another. ***I:*** *So, it seems that your is quite demanding, it involves dealing with different situations. Now, if I ask you a little bit about your initial training to become a police officer, do you remember if you had any information about autism?* **PM2:** If I'm not mistaken, we had a session, a lecture but, on different disabilities in general but not on autism. Although	

autism today, is becoming much more popular in the sense that more people are becoming more aware of autism than it was in the past, like many other conditions. I think that it is a very important condition to be informed about, especially in the work of the police when it comes to autism. But unfortunately, we are not aware of it, we are not prepared for it in our initial training. At the same time, we as police meet every class of society, every condition, including that of autism and frequently I say to myself that this person that I have in front of me, may be suffering from a condition such as that of autism...so yes, I agree that we need to be prepared for conditions like autism, it has to be included in our recruitment training. ***I:*** *Today if you look back, you have ten years of experience, and I'm sure that you have met several people in the community, what will you do different in the initial training of the police vis-à-vis autism.... what would you include in the training?* **PM2:** The way you identify that a person has autism I think it's very important. All right, perhaps some of us know that this condition exists and perhaps some might know its basics, the features of the condition, but we don't know how to communicate with them for sure. So I would definitely include information on how to communicate with these people in our recruitment training. Communication is one of the most precious tools that we have as police and I know that with people with autism you cannot communicate in the same way as you communicate with 'normal' people. We need to learn a new way because I'm too concerned that if we don't use an appropriate way, misunderstandings will occur. And another thing that I would include is some information about is their behaviour, we meet with bizarre behaviour everyday and we would need to be aware	No autism information in initial training Communication

of the behaviour of autistic people. I consider this unusual behaviour as a wake-up call, something has to be done about it, because I think we are all somehow aware of the negative consequences when their behaviour is misunderstood. When this happens people with autism and their families might suffer for nothing and we would be adding to their difficult moments rather than supporting them. ***I:*** *And can you tell me how often do you think you have contact with autistic people in your work?* **PM2:** As people with different conditions, we meet a lot ...with different conditions. As a condition of autism, I am not able to tell you, but I believe we meet them continuously and most of the time we do not even know, especially when they are mild, because I know that physically they don't have anything different that help us realise that the person is autistic. However, I can't say, listen, this is autistic, unless there is a parent or family member who says listen he is autistic. ***I:*** *And what kind of support do autistic people usually need from you? I mean when you as police have an encounter with an autistic person, what would normally be the issue?* **PM2:** The most common situations that we meet with autistic people is because of their behaviour, which we do not really understand. However, the most encounter that I had so far is through their parents because they call us because their son with autism would be doing unacceptable behaviour such being aggressive with them and breaking a lot of things in the house you know and they call us to talk to their son in an attempt to frighten him with our authority and we usually have to talk to this	Contact with autistic children Challenging situations with autistic children

young man, sometimes we need to go to his house as well to control the situation. However, I find it very difficult to deal with such situations because I know that the person has autism so that treating him like a normal or let's say a person without autism would be wrong. It's always a very uncomfortable situation for me because I really don't know how best to go about it and I hate it when I have to do something that I don't have knowledge about. Also, we meet people during our work with suspicious behaviour, and although I usually realise that there is something che non va, we don't take risks and we act immediately, irrelevant if the person is autistic or not. ***I:*** *And can you describe to me maybe an experience when you met a person with autism, or maybe you suspected that they have autism, and you felt like you were at a loss, without information?* **PM2:** Yes I have a very special situation that I can share with you. This has happened around 5 years ago, it was basically at 5 in the morning, we had just started our work, we were told that there was a boy walking alone in the bypass going to Zejtun. We went, and we saw a boy full of sweat, looking in a fixed direction, when we spoke to him he didn't answer back so communicating with him seemed rather an impossible task...we could't leave the boy there in the middle of the bypass because as you know that is a very dangerous road. I realised that something is wrong with this boy because he was ignoring us completely. I told my colleague to park the car at the petrol station and I told him to the leave the car doors open because I was trying to offer my hand to this boy but for nothing. At that time, I said that there wasn't much that we could do because the boy was not responding at all. But somehow we have to put him in the car	Uncomfortable with autism Challenging situations with autistic children

and take him somewhere safe because in the middle the bypass was not safe. As we arrived in front of the car I literally grabbed the boy and got him into the car ....and we drove off to the police station...in short I took him to the police station and when he saw a computer he went in front of him. I said so this could be that he has some kind of condition that makes it difficult to communicate and these things ... whatever ... in short and apparently the only thing he was able to do with the computer was to open the media player and play the records because that's all he started to do, one after the other. We were trying to ask him what happened to him, how he ended up in the middle of the road during that hour but he didn't talk to us. I tried to give him a paper perhaps he could write his name...and we managed to know his name and after a lot of attempts we managed to discover his locality…in short, the story unfolded that this boy had run away from home from B'Kara, the only road he knew was going to Zejtun where he would go to school, and this from B'Kara moved it, and he was going to move it as far as the school. In short, the family told us that he has the condition of autism, he left the house at night he broke a window and came out and started walking and these things... ***I:*** *This was a very interesting encounter and without doubt your intervention was crucial to the safety of this boy. When you look back, can you tell me what was the most challenging for you and why?* **PM2:** Without any doubt the issue of communication was the main challenge for me. I was trying very hard to find ways to communicate with this boy but I couldn't find an appropriate way to communicate with him…believe me it's frustrating. At the	Communication

same time, I had to be super quick because he was in real danger in the middle of the bypass. ***I:*** *What action did you take after this episode? Because as you said this situation gave you the opportunity to experience directly someone with autism who needed your help and you realised that the quality of your intervention had a tremendous impact on the safety of that boy.* **PM2:** After this, to be honest I googled autism to get some information but you know what you find is general information about autism. The thing is that this was short-lived because we meet with other matters and to be honest you quickly divert your attention on something else and the need to do something although remains in you because situation like this I'm not going to forget it for sure but you would need some help to get the right information that how to deal with people with the condition of autism. ***I:*** *As I said in the beginning of this interview, a few months ago I conducted a survey among a sample of district police in Malta and other professionals, and the results showed that the police know little, very little, about autism, (even for the other professionals, similar results were obtained). that is, not just the police. How would you rate your knowledge on autism? if I tell you on a scale from 1 to 10, 1 means very little and 10 means very knowledgeable* **PM2:** I think I would say 4, because I have some information about it but with regards to how to deal with autistic people is lower than 4! Because as I told you the thing is that we really need training to help us deal with autistic people because at the	A need for more training

moment we're completely at a loss. Between having knowledge and apply that knowledge in reality there is always a sea to share. Practical knowledge is very important because it is this kind of knowledge that will determine how you will actually work, that is supporting autistic people especially how to deal with them, not to use the same methods as with other citizens you know, we will definitely need hands-on training which is very, very, very important to give us this very much needed information. To be honest, my motivation will go sky-high if training shows us how we can change our approach when dealing with an autistic person. Because it is something which is really needed and I know that it can make a difference in my everyday work. ***I:*** *Yes, I understood you point. And perhaps if we focus on your knowledge on autism that you obtained throughout the years, what has helped you to obtain such knowledge?* **PM2:** Let me tell you, the internet is a very good tool today, I mean the internet is I think the most important thing to find to find any information that you would like to access. Anything that you would want you can just google it. Nowadays we have this tool thank God that can help us obtain any information here and then...the local television was also a good source for me to get some basic information about autism. ***I:*** *And do you feel that your current awareness of autism should be improved in your work?* **PM2:** Very important yes...I definitely agree that my autism knowledge needs to be improved…very important and like I said I value hands-on training. We have recently focused a lot	More practical skills A need for more training

especially on domestic violence and we are receiving training on domestic violence and I believe that autism training should be considered very important as well. ***I:*** *And can identify three main topics that you would like this training to cover?* **PM2:** I think how to communicate with people with autism is extremely important. I consider this as a basic but very significant topic so that we can support autistic people. Like I told you before in my experience with an autistic boy, I would have appreciated if I had more information on how I could communicate better with that boy for example with the use of visuals you know. This is a subject that I consider very important to tackle. Another topic which I consider very important is to learn more about to understand more the behaviour of autistic people and how we can distinguish between the behaviour of an autistic person and criminality. I'm also very interested to know about different age groups. For example, I'm curious to know what is the behaviour of autistic adults, in the sense how the condition of autism affects their behaviour. And another topic would be how can I change my style when I'm dealing with an autistic citizen. I know that I need to act differently but I don't know what should I do differently. ***I:*** *OK very good and you also gave me the reasoning behind the selection of the main topics that you would include in the training. Now, I wanted to ask you whether you have ever attended any training on autism perhaps in the last five years?* **PM2:** No about autism I never attended any training.	Communication Never attended specific training on autism

I: *And what was the main reason/s that you never felt the need to attend any autism training?*	
PM2: Let me tell you, the fact that there is no training available in Malta as I don't know of any training that is good for me as a policeman, because that is a very important point that I want to make the training has to be suitable for our specific job otherwise it won't be useful for us…because we don't need information on autism but we need practical information on how we can deal with autistic people when we meet with them during our work, you know what I mean? You have to keep in mind what our police work entails.	Not aware of available autism training Tailor-made training
I: *Yes, yes, I can understand your point very well. And how could we encourage more police to start participating in autism training?*	
PM2: To encourage more police to participate in autism training, I think it should be during working hours because after work I don't think it would be possible. And like I said we need to show police that.	During working hours
I: *The survey data showed that only a small number of police respondents had attended autism training. What do you think might be the main reasons for this result?*	
PM2: Let me tell you, the fact that we do not know about the condition we will not be able to tell that we are meeting autistic people so we might think that we don't need training. For example, if I have a case of domestic violence, it is very clear to me that it's a case of domestic violence and these cases continuously remind us that we need to be more informed to deal	

with these cases...so if I had 10 cases of domestic violence, this made it very clear that we are meeting more frequently with these cases and this automatically motivates us to learn more about this area. But if I had five autistic cases, at the moment I won't be able to tell you that these were cases involved people with autism. So, naturally all our energy will go to domestic violence rather than on autism. So, I think this might be the main reason why police are not choosing to undertake training on autism and like I said other topics will take priority because we are of the impression that we meet less with autistic people. ***I:*** *Would you tell me more about the barriers that hinder police from participating in autism training?* **PM2:** Other barriers that might think of right now are the idea that we can never become knowledgeable to deal with autistic people…I think sometimes we see autism something very beyond us and in my opinion, I doubt my ability to deal appropriately with autistic people…it seems that there are more people who are much more knowledgeable than me who can help autistic people. ***I:*** *Also, the survey data showed that a key barrier to engage in autism training is having a tight work schedule. How might we enable more police to access such training within their heavy workloads?* **PM2:** Yes yes, that's very true. We work on a very tight schedule and we also have a shortage of staff. If we forget this extraordinary time of Covid, when our work is much more intense, yes I think that we as police we don't give enough importance to training. We focus too much on our work at the	Helplessness

expense of training. So, if I have eight hours of training a month, which is currently also very difficult to catch up with them, because our work will always take a priority, training will be base on the most important things like I said such as domestic violence, not autism unfortunately. ***I:*** *So, if I understand you correctly as a structure you have 8 hours per month that are dedicated to training, right?* **PM2:** Yes, but at the moment we don't even reach them, like I said other things will always take over. ***I:*** *But do you choose where to go for training or how does it work?* **PM2:** The Corp provides the training and it will instruct us what training to undertake, so this is another important point that people who are responsible of the training should be more aware of autism...I'm a police officer who works in the district, and I have different training that is related to my kind of what that I do. Also, this year the training structure is changing, this year we had a two-week straight course, meaning you have two weeks to attend the academy and you have to be there full time ...I spent two weeks away from my station and there you have a training session every day...you have different topics everyday. ***I:*** *And you did them these two weeks training, did you?* **PM2:** Yes, I did them ***I:*** *Good, and was autism included in this training?*	

PM2: No autism was not included at all. ***I:*** *Do you feel the need to include autism in these two weeks of training?* **PM2:** Yes for sure I would include autism in this training because I believe that we have a lack of knowledge on autism as police. But I want to make this point because although for me it might be important to include autism in the training for the person responsible in the training design might not be that important. The reason would be that because we work a lot on police statistics. And as I already explained that since we're not able to identify autistic people, these cases won't be represented in the statistics collected. So, the likelihood of autism training being offered would be very limited because we base our work on statistics, even in training the Corp usually decides to provide training on the 10 most frequent cases that we have…so the first thing that needs to be done is to train the police to recognise autism and include autism in our system, so that these cases can be recorded too. ***I:*** *Now, let's talk about motivators to attend autism training. What would motivate you to attend autism training?* **PM2:** I want to learn more on autism because I want to do a better job…when I work on a situation and I managed to do it well, I feel very satisfied. On the other hand, when I face a situation and I feel at a loss i.e. I don't know what to do, I feel very sad about it. Moreover, in our work I think the shorter the training is I think it will be more successful I think...that is to say we are not talking	A need for more training Concise

eight hours straight, you do an hour two hours session, you did it, and I continued with your work. If you leave for an hour it's one way, but if you leave for six hours, it's a different way. ***I:*** *And maybe even now we are experiencing a lot of online meetings etc, how do you look at it? What do your prefer to have training – online or the traditional in person training?* **PM2:** I definitely prefer face-to-face training, I don't feel comfortable interacting with a monitor! The live experience of being physically present is the best option to learn…I think I feel much more involved. ***I:*** *I also wanted to ask you something on the survey data because there was a difference between even female and male police. The survey showed that women were more likely to attend an autism training than men. What ideas have you about why this might be?* **PM2:** I don't personally see any difference between males and females police officers with their willingness to participate in autism training. But I'm aware that females are more caring than us and perhaps they feel more the need to be more knowledgeable on autism so that they can help them more. But on the other hand, as a male policeman I consider myself as willing to learn more on autism, so honestly, I don't think that females have something extra that make them more willing to attend training on autism. ***I:*** *Are you aware of any recent or current autism training that was/is suitable for you?*	Preference for face-to-face training No difference between male's and female's willingness to undertake autism training

PM2: No, I'm not aware of any training on autism that is good for me i.e. taking into consideration the roles and responsibilities of police. I think that I already mentioned this that this lack of training is one of the major problems because we don't have any training to refer to. ***I:*** *And do you consider that autism training should be mandatory for police?*	Not aware of available autism training
PM2: I believe it should be mandatory yes, because like this we would be solving many of the problems that I mentioned earlier on. For example, that other duties taking over autism and we don't find time for autism training you know. ***I:*** *Now I also wanted to ask you a question about all the training programmes that you have attended, in the last 3 years, can you identify one that you found useful?* **PM2:** Let me tell you, at the moment the main focus of Maltese law is on Domestic Violence. It is a subject that as it makes a lot of noise in the media, it makes a loud noise, we had certain cases that were....and the Corp had started a structure that sends especially as many police officers as possible to a course inside the Domestic Violence Unit which is located in St. Venera, where two British professionals were running this training. They are running a program currently I forgot their name, where these two professionals met professionals from various categories working with Domestic violence especially social workers, police, I doubt if there were any doctors, the first responders , where a person who is part of Domestic Violence, where we put them together in a room, gave their views these professionals, how they work in England, showed their system, then left us both	Agree with mandatory training

as police and as social workers, and doctors say their views and we were able all together, in the same room, to talk about the way we work and how we approach a case. So, there I found out how social workers act when called upon domestic violence cases. The social worker found out how I was on duty at the police station when the case came or an emergency doctor when he reported a case and suspected a case of domestic violence. So this course brought us together, everyone gave their ideas, we had their know-how, they were two good professionals, I believe because they seemed to be very passionate about their subject, they helped us a lot in the subject. I think this was the most useful training I have ever received because I learn a lot from the views of other professionals who work in the same area of domestic violence. ***I:*** *It looks like that hearing the views of other professionals working in this same field would increase your motivation to attend training.* **PM2:** Yes it makes the training much more effective. And in the case of autism, I would include people with autism themselves in the training. This is very much lacking for example I think I never met an autistic adult and heard his experience so that would be a very big motivator for me to undertake training because like they say you will be hearing the experience from the horse's mouth. ***I:*** *Yes, we can elaborate a bit more on your preferred learning format...the survey showed that a full day seminar was the most preferred learning format for police to acquire knowledge on autism. Is this a view you share?*	Input from autistic people and/their parents

PM2: Regarding that course of domestic violence it was like that, one full day, the same and I considered it very effective. It's good because in one day, you would manage to combine all the topics. Indeed, I took a day off, and focused on them, I participated in workshops, I believe it is very good...so far, at least from my point of view, it was a success that training of domestic violence. I believe in autism it would be good too…if you manage to do it in one day it is much better than have it staggered…it will cause less trouble to our work schedule. ***I:*** *Why do you think the majority of police respondents chose this method?* **PM2:** To be honest I think the majority of my colleagues think that this is the most convenient way of having training rather than the most effective. Because if I think about it I think it's impossible to cram everything in one day and you can remember everything. So deep down I believe that having short training spread out during the year is more effective because it will help you to remember more. ***I:*** *Would you elaborate a bit more on your preferred learning format that have an impact on your motivation to engage in autism training?* **PM2:** For me training that provides practical knowledge rather that knowledge I call it book oriented, is the best method because this kind of knowledge can easily be transferred to my everyday work. And I really appreciate when training is interactive that is I can ask questions, not staying passive because only us can ask question relevant to our role and responsibilities as police you know. The best is when you can	More practical skills Interactive approach

react immediately to what you are hearing…instantly…when you are active not passive, not like when you are in church and you just listen. ***I:*** *And as a training place, where do you prefer to have your training?* **PM2:** For me, although the training content has a lot of weight like we have discussed, the place where the training is held is also very important to me. I think it would be much better if the training is held beyond the police premises because like that we can focus more on the training. For example, when we had the domestic violence training, it was held outside the police premises and it was very relaxing beyond our usual work environment, we could focus more on what was being done. Because if it's done in the police station for example, I can tell you that it won't work for sure because the environment is not ideal, because as you can imagine it is a very busy and noisy environment, it won't let you focus. ***I:*** *The last question I have for you is what three pieces of advice would you give to a training provider when designing training on autism for police?* **PM2:** So, getting the basics is very important. It is important to start with the basics because in reality, we need a good introduction. You have to keep in mind that we never received any training in autism. At the same time general information only about autism won't help us but it has to be related to the policing roles that we carry out. Indeed, I was really interested in your study because you decided to hear our ideas rather than imposing your ideas on us, which unfortunately is the norm. So,	Preference for having training beyond police premises Tailor-made training

my first advice is this to listen to our views first rather offering a ready-made training because we are the only ones who knows our job and what is needed when meeting autistic people. And only like this training can be practical in the sense that it gives us the tools that we really need to deal appropriately with autistic people.	
Another important advice is to include examples of success. Like I said sometimes, not sometimes very often we think that we're not capable of dealing with autistic people. So, presenting us situations where other police officers made success when they dealt with autistic people that is they were able to communicate with them and provide them the support that they needed, this would be very useful. Perhaps we can look at other countries because I think all the police in Malta are in the same boat with regards to capabilities. But I'm aware of other countries which are more advanced than us and we can follow their examples so, that would be something very helpful because it could fill the lacuna…they could tell us about successful interactions they might have had with autistic people and which approaches worked well. This would be the best practical knowledge I could get on autism.	Success stories Helplessness
My third advice is that training should include activities that keep us on the move rather than sitting down, listening that's boring! Don't forget our police jobs involve a lot of physical activity and we are not used to sitting down and listen to lectures. So, I would include games for example that help us remember more how we should act when we're dealing with autistic people. I would be very motivated to training that includes situations that we are very likely to encounter for example an autistic person exhibiting	Interactive approach Simulation-based learning

bizarre behaviour, how do we interact with him? Without making the situation worse. ***I:*** *Good. Is there anything that you would like to add? Perhaps an important point that you think we didn't mention.* **PM2:** I think I mentioned a good number of points that I really hope that you would find them useful in your studies. Perhaps, something that we didn't elaborate on is the trend that all the existent training that we had as police which were very effective they were all stopped, the main reason being that other work will take over. So it's not only the setting up of training which is important but also making sure that this training continues…it seems that there's always something interfering, now we have Covid for instance, before this we had the political crisis…you know and when our work intensifies a bit the first thing to go is training. Also to motivate police to participate in autism training you first have to convince us that autism it is part of our work because I'm not sure whether this is very clear in our mind. So if this is not clear, you cannot have police on board, this could be another reason why we are always postponing autism training.	Procrastination

Appendix 7. Confirmation of Ethical Approval

The University of Birmingham

From: Samantha Waldron S.M.Waldron@bham.ac.uk

Subject: Application for Ethical Review ERN_15-1574

Date: 20 November 2017 at 10:18

To: Despina Papoudi (School of Education) Glenys Jones

Dear Dr Despina Papoudi & Dr Glenys Jones

Re: "Exploring the issues in developing awareness training about autism forpaediatricians, mainstream secondary school teachers and community police officers in Malta. "

Application for Ethical Review ERN_15-1574

Thank you for your application for ethical review for the above project, which was reviewed by the Humanities and Social Sciences Ethical Review Committee.

On behalf of the Committee, I confirm that this study now has full ethical approval. Please ensure that approval is given by the Maltese organisations you will be working with, prior to the study commencing.

I would like to remind you that any substantive changes to the nature of the study as described in the Application for Ethical Review, and/or any adverse events occurring during the study should be promptly bought to the Committee's attention by the Principal Investigator and may necessitate further ethical review.

Please also ensure that the relevant requirements within the University's Code of Practice for Research and the information and guidance provided on the University's ethics webpages (available at https://intranet.birmingham.ac.uk/finance/accounting/Research-SupportGroup/Research-Ethics/Links-and-Resources.aspx) are adhered to and referred to in any future applications for ethical review. It is now a requirement on the

revised application form (https://intranet.birmingham.ac.uk/finance/accounting/Research-Support-Group/Research-Ethics/Ethical-Review-Forms.aspx) to confirm that this guidance has been consulted and is understood, and that it has been taken into account when completing your application for ethical review.

Please be aware that whilst Health and Safety (H&S) issues may be considered during the ethical review process, you are still required to follow the University's guidance on H&S and to ensure that H&S risk assessments have been carried out as appropriate. For further information about this, please contact your School H&S representative or the University's H&S Unit at healthandsafety@contacts.bham.ac.uk.

Kind regards,

Miss Sam Waldron

Deputy Research Ethics Officer

Research Support Group

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Web: https://intranet.birmingham.ac.uk/finance/accounting/research-supportgroup/Research-Ethicsgroup/Research-Ethics

Please remember to submit a new Self-Assessment Form for each new project.

Click Ethical Review Process for further details regarding the University's Ethical

Review process, or email ethics-queries@contacts.bham.ac.uk with any queries.

Click Research Governance for further details regarding the University's Research Governance and Clinical Trials Insurance processes, or email researchgovernance@contacts.bham.ac.uk with any queries

Notice of Confidentiality:

The contents of this email may be privileged and are confidential. It may not be disclosed to or used by anyone other than the addressee, nor copied in any way. If received in error please notify the sender and then delete it from your system. Should you communicate with me by email, you consent to the University of Birmingham monitoring and reading any such correspondence.

Appendix 8. Debriefing Form

Dear Participant,

Thank you for participating in the present study. Research within the field of awareness-raising training about autism suggests that professionals from various disciplines would like more information on autism. There is little information on what motivates or discourages professionals to attend awareness-raising training, and what information they consider useful in terms of the needs arising from their daily practice.

This study intends to explore those factors that are likely to increase the likelihood that training on autism is taken up professionals successfully and effectively. This will lead to guidelines on how best to organise and deliver training. Your participation today is much appreciated.

This is a relatively new area of research particularly in Malta. Should you wish to acquire further information about autism training you may contact The Malta Autism Centre on: maltaautismcentre@gmail.com.

For more information about training courses abroad and online, I suggest the following websites:

The National Autistic Society: http://www.autism.org.uk/professionals/events-by-date.aspx

Autism Education Trust: http://www.autismeducationtrust.org

Autism Oxford: http://www.autismoxford.org.uk/index.php/events

Able training: http://www.able-training.co.uk/training-courses/

Thank you once again for your participation.

Best wishes,

Melvin Attard