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Exploring the link between self-harm and autistic traits – a mixed methods design and analysis

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Submitted in fulfilment of the requirements for the Professional Doctorate in
Counselling Psychology (DPsych)

City, University of London

Department of Psychology

January 2023

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Acknowledgements

Thank you to everyone who participated in this research project. Without your brave participation it would never have happened. I dedicate this thesis to all of you and those who will find themselves in similar positions in the future. I will never stop being curious around other people's experiences and I will always strive to improve better understanding and treatment of mental health.

Thank you to my incredible supervisor Dr Jessica Jones Nielsen, who stood by me through the ups and downs of this process (at all hours of the day). Your support and expertise have been invaluable to me.

A BIG thank you to my husband Jonathan, for being there every minute of the way, always believing in me and encouraging me to keep going. We've spent many, many evenings talking about this research and you always listened carefully and thoughtfully, advising, and supporting me in every possible way. You are my rock. Thanks to my three amazing children, Eitan, Mia and Guy for always keeping me on my toes, giving out kisses and hugs, making me laugh and reminding me to live in the present. I love you all so much and hope I've made you proud. Thanks to my beloved fur baby, Piper, who kept me company during all those long nights of this process.

A very, very important thank you to my amazing father-in-law, David Morgan, for patiently and meticulously proof-reading this work. I'm beyond grateful.

Thank you to my loyal friend, Dr Elizabeth Forsythe, for all those hours you patiently listened (when others would have fallen asleep), encouraged and advised me. There were many friends who supported and encouraged me through the past three years, I feel very lucky to have such loving friends. Thanks to all of you!

Finally, but not least, I want to thank my past therapist, Marc Hekster, who helped shape who I now am; personally, academically, and professionally. Thank you for standing by me on a long journey of self-discovery which wasn't always an easy journey. You helped me discover my true self. I know this is an ongoing journey and I will continue this, so I can live life to the full and better myself as a person, partner, mother, researcher, and clinician. Thank you!

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Preface

“Undiagnosed neurodivergence is like being handed a video game that has been set to hard mode, but having people tell you over and over “it’s on easy, why do you keep dying?” Diagnosis is learning the game is on hard mode. It doesn’t make it easier, but you can strategize.” Anonymous.

Introduction

For the past two decades I have continuously acquired clinical experience and further education in the field of psychology. This has been an evolving time professionally, academically, and personally and all three areas impact each other. The Professional Doctorate in Counselling Psychology training course has formed a crucial part in this journey, which I will continue to develop further within those three main areas of my life to further contribute to the field of counselling psychology and be a reflective scientist-practitioner.

I have gained many new skills and tools both within my research and clinical knowledge base. However, the feature that has evolved most has been my philosophical beliefs and these in particular have shaped this portfolio and been reflected herein. I have a strong belief that what the client brings into sessions, both consciously and unconsciously, and the therapeutic relationship we develop as a result, is of utmost importance. At the beginning of this journey, I made a conscious choice to free the client (and myself) of diagnostic labels as much as possible. This is reflected in my strong interest in psychodynamic theories and approaches which I incorporate in much of my clinical practice.

However, over the last three years I have understood how important a diagnosis can be for people and this applies across mental health conditions. For example, someone with OCD can use a diagnosis to get the appropriate support and interventions but also to separate the label from themselves i.e., this condition does not define who someone is as a person. However, working with people who are neurodivergent may require a different approach as this is typically identified as part of the self that one learns to live with, rather than try and ‘fix’ a condition or underlying cause.

Being a mother of three neurodivergent children has undoubtedly also shaped both the research I conduct and my clinical practice. The most recent in our family, being a diagnosis of ADHD in the last year. This had been clear to me for several years, yet I had held back with an assessment. The amount of internal conflict that caused in myself and how torn I had

felt whilst conducting this research and continuing my clinical practice, is indescribable. What stigma would a diagnosis come with? Could a diagnosis be more harmful than good? We could spend 45 minutes, trying seven different pairs of socks in one morning (and it still did not feel quite right) and have endless tears and frustration. It is difficult for others, who have no experience of neurodivergence, to fully understand how simple tasks can seem almost impossible and the impact this has on the individual and the rest of the family. I knew we would need a formal diagnosis to fully embrace and celebrate my child's differences as well as offer him the best support. I hope my children grow up feeling proud of being different and of all their incredible achievements. I see them, and all the other neurodivergent people, and the struggles they are facing every day in a world where they are mostly expected to 'fit in'. There are many truths out there, believe in yourselves and be proud of who you are.

All the above has meant that I have developed a pluralistic worldview based on a pragmatic epistemology and a critical realism ontology. It is precisely this worldview that threads and links together parts in this portfolio. There are three parts to this portfolio which will briefly be outlined below in addition to how they link together through the overarching philosophical underpinnings.

Part A: Research project

The research project investigated the prevalence of traits of Autism Spectrum Condition (ASC) within the self-harming population. The information was used to further understand the increased prevalence of traits of ASC within this population by adding a qualitative component to the study. The quantitative part of the study recruited 225 participants via online platforms to fill in a questionnaire detailing their self-harm behaviours as well as the autism-quotient 10 (AQ10). The AQ10 is a screening tool, recommended by the National Institute of Clinical Excellence (NICE, 2012), which can identify traits of ASC. A score of 6 and above is the recommended clinical threshold and individuals with such a score should be considered for a full ASC assessment (Allison et al., 2012; Booth et al., 2013). Measures were put in place to mitigate risk whilst carrying out research with a group already at increased risk of harm which meant the quantitative part of the study were able to include data from 111 participants. A one-sample t-test indicated their AQ10 scores were significantly higher than that of the general population. Seven participants who had scored above the clinical cut-off on the AQ10 also took part in the qualitative part of the study which consisted of semi-structured interviews to better understand their experiences. This was carried out using a framework of reflexive thematic analysis (TA).

The research project undertook a mixed methods design to underpin and reflect my worldview. The pluralistic philosophical standpoint means that I firmly believe there are more than one truth and in both clinical and research contexts these truths and beliefs need to be shared and understood between clinician/client, researcher/participants, and individuals/society.

Part B: Clinical case study

My clinical experiences to date have only been in the NHS and whilst I have a personal interest in psychodynamic theories and practice, I am also acutely aware of the need for cost-efficiency as well as long waiting lists which typically does not work well with long-term work. However, I have also worked long enough in the NHS to see clients return with the same presenting issues within a year of having completed therapy, sometimes in the same clinic. Moreover, particularly working in the NHS, I follow NICE guidelines on best practice where possible and when the client is agreement. Nonetheless, regardless of the modality employed, I believe the therapeutic relationship is crucial to change.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Following an extended assessment, I carefully considered how I could offer Anna a therapeutic experience which would have long lasting effects, in a relatively short time. I suggested to Anna that we would work using an assimilative psychodynamic psychotherapy modality, which was also strongly underpinned by my own worldview. This pluralistic model has a psychodynamic base yet allows for any other model to be incorporated as and when needed. This gave us the flexibility to make use of the therapeutic relationship and explore early object relations whilst including other techniques such as assertiveness skills, which were quicker to work with and on a more behavioural level. The pluralistic model also allowed Anna to take agency of this collaborative work and she implied she did not want to work on her issues around [REDACTED] despite the therapy in the end having an indirect positive impact on those issues, which is common when working with the unconscious in psychodynamic work (Stricker, 2006).

Part C: Publishable journal article

A journal article was written to summarise the research conducted in part A with the intention to publish the findings. I always felt it was important to publish the research to honour the participants' time and emotional energy they have given to this study. Moreover, these

important findings could contribute to clinical changes which could have a drastic impact on the lives of the individuals this research is about. The hypotheses were confirmed which makes it even more plausible to have implications for clinical practice as well as suggesting directions for future research within the field. The journal article was written with the aim to publish in the journal 'Autism' as it is believed this high-impact, international journal is best suited for the purposes of publication for this paper.

Part A: Doctoral research

Exploring the link between self-harm and autistic traits – a mixed methods design and analysis

Supervisor

Dr Jessica Jones Nielsen

Abstract

Self-harm is increasingly recognised as a global health crisis on the rise in both children and adults. Individuals with autism spectrum condition (ASC) are more likely to self-harm and die by suicide compared to the general population. Early identification of ASC is crucial for mental health outcomes however, pursuing and gaining access to autism assessments can be a lengthy process, particularly with an increase in demand. ASC is a wide spectrum and those on the higher end of the spectrum may never be identified as having ASC. Females especially tend to go undiagnosed or be mis-diagnosed due to camouflaging or experience symptoms of ASC differently. This may suggest that there is a 'lost' population of individuals with high traits of ASC (as measured by the AQ10) but no diagnosis. A mixed methods design was conducted to identify the prevalence of individuals with traits of ASC (without a diagnosis) within a self-harming population and gain a richer understanding of their experiences through reflexive thematic analysis. Results indicated that the self-harming group had a significantly higher mean AQ10 score compared to the general population ($M = 1.95$, $SD = 38.843$); $t(110) = 14.699$, $p = <.001$). 43.24% in the self-harming group scored above clinical cut-off for ASC. These findings were further explained by the qualitative data, suggesting that self-harming individuals with high traits of ASC had felt different to their peers as children and this had continued into adulthood where they struggled particularly with socialisation – a key characteristic of ASC. It is key that this group is identified to reduce the rate of self-harm, offer them appropriate interventions and an opportunity for better understanding their differences and difficulties themselves, especially as research suggests self-harm as a crucial indicator for suicide.

Abbreviations

ADHD	Attention Deficit/Hyperactivity Disorder
ASC	Autistic Spectrum Condition
ASD	Autistic Spectrum Disorder
AQ	Autism-Spectrum Quotient
EBSDs	Emotional, Behavioural, and Social Difficulties
ED	Emergency Department
EMB	Extreme Male Brain
ID	Intellectual Disability
NSSI	Non-Suicidal Self-Harm
NT	Neuro Typical
SIB	Self Injurious Behaviour

Chapter 1: Literature Review

1.1 Introduction

This chapter will give a brief overview of ASC (Autistic Spectrum Condition), self-harm and suicide followed by a review of the literature around self-harm and suicide within the ASC population. In addition, this chapter will explore the limited literature researching self-harm and suicide in individuals with traits of ASC but no diagnosis. Recent research has investigated suicide ideation and risk within an undiagnosed ASC population who displayed traits of ASC (Pelton & Cassidy, 2017; Richards et al., 2019). This emerging evidence has informed the current research, supported further by the evidence from within the ASC population, and has formed the rationale for this research and the decision to choose a mixed methods design.

1.2 Terminology

1.2.1 Autistic Spectrum Condition

The term ASC has been favoured instead of the more common term 'Autistic Spectrum Disorder' (ASD). The researcher strongly felt that it would be preferred if autism was viewed by society as a condition, not a disorder. A disorder is often viewed as something that needs to be 'fixed'. This also supports the reasons for the desire to carry out mixed methods research, the axiology and the researcher's philosophical beliefs around the topic and how to research it. This will be explained in greater depth in Chapter 2. When the study was presented to a service user group, the terminological use of ASC rather than ASD was explained. A discussion subsequently took place about terminology, and the service user group also favoured ASC over ASD. The terminology was important for the service user group, and they described this was not only to respect those individuals the research was about and with, but also to think about how our use of language impacts others. Notably, ASC is seen as a term preferred over ASD in more recent published research e.g., Cassidy et al. (2017, 2019) and Richards et al. (2019). For the present study, ASC has been favoured over ASD.

1.2.2 Self-harm

For this paper the term 'self-harm' is used, and the definition has been adopted from the National Institute of Clinical Excellence (NICE, 2022). The definition by NICE (2022) states the following: *"People who have carried out intentional self-poisoning or injury, irrespective of the apparent purpose of the act"*. Self-harm has been the preferred term in this research however, many other studies use terms such as non-suicidal self-injury (NSSI), self-inflicted

harm/injury or self-inflicted behaviours (SIB) which is how they will be stated in some tables that have been shared from other papers. The definition of the terms may also slightly differ and even the same terminology may differ in definition from country to country. This literature review has included information from research carried out in other countries, hence where relevant, the difference in definition has been highlighted.

1.3 Self-harm

NICE (2022) recently updated their guidelines around self-harm; assessment, management, and prevention of recurrence where they defined self-harm as following: *“People who have carried out intentional self-poisoning or injury, irrespective of the apparent purpose of the act”* (NICE, 2022). In England alone, there are over 200,000 self-harm hospital presentations a year, costing an estimated £128 million (McDaid, 2021). The prevalence of self-harm in England has nearly tripled in the last 10 years (McManus et al., 2019). People who seek medical attention for self-harm have a risk of dying by suicide that is more than 50 times higher than that of the general population and this risk is especially significant in the months after hospital discharge (Geulayov et al., 2019)

Self-harm is an ongoing concern for children, adolescents, and adults on a national and global scale. There has been a rise in hospital emergency departments seeing patients attending for self-harm, although most people who self-harm do not present to hospitals, which therefore cannot account for a rise of self-harm in the community (Masuku, 2019). Consequently, we can expect the actual numbers of people self-harming to be higher than those reported. Research across several countries in Europe have reported a steep increase in self-harm in both sexes although females generally had the highest rise. For example, Danish hospital registration data indicated a rise in self-harm between 1994-2011 (Reuter Morthorst et al., 2016). Self-harm among those aged 10 to 24 in Ireland increased by 22% between 2007 and 2016, (Griffin et al., 2018). Findings from a recent longitudinal study suggest that there has been a major rise of self-harm in England despite these figures not matching a rise in use of mental health services (McManus et al., 2019). The study found that self-harm was frequently reported as a coping strategy to relieve emotional distress such as feelings of anger, tension, anxiety, or depression. Furthermore, data from NICE (2020), disclosing statistics and clinical information about self-harm in the UK, reported a disproportionate higher rate of self-harm in females. The general rise of self-harm is of great concern, particularly as this also include children and young adults. Data released by the NHS in 2018 as part of a paper investigating mental health in children and young adults, reported that approximately half of young people aged 17-19 with a mental health disorder

had self-harmed or attempted suicide at some point (NHS Digital, 2018). Moreover, studies looking at gender differences in self-harm in children were in line with previous findings in the adult population, demonstrating a prevalence of 11% in girls compared to 3-6% boys (Hawton et al., 2002; Moran et al., 2012).

There are many factors that are associated with a risk of self-harm. Some factors that have been shown to positively correlate with self-harm include low self-esteem (Forrester et al., 2017), shame (Sheehy et al., 2019), adverse childhood experiences (Cleare et al., 2018), being gay or bisexual (Taylor et al., 2018), neurodevelopmental conditions such as ASC (Steenfeldt-Kristensen et al., 2020) and ADHD (Ollson et al., 2022), mental health conditions such as anxiety and depression (Brereton & McGlinchey, 2020), eating disorder (Perez et al., 2018), bipolar disorder (Dimick et al., 2022), attachment styles (Oskis et al., 2019), and personality traits such as neuroticism (Hafferty et al., 2019) to mention just a few. In part of this chapter, we will explore how ASC correlates with self-harm, even after adjusting analyses for some of the other potential co-occurring risk factors.

It is evident that self-harm is an indicator of psychological distress, is rising, impacts overall quality of life and is associated with co-occurring poor mental health (McDaid et al., 2022). In some cases, self-harm is a single occurrence although frequently, self-harm is a repeated behaviour (Carroll et al., 2014; Clements et al., 2019). In the UK, 25 percent or more who presented to emergency department for self-harm had a history of previous episodes (Lilley et al., 2008), making it even more pressing and important to better understand the prevalence and the functions of self-harm as well as identification of clusters in the population where self-harm may be more prevalent, in order to improve prevention and recurrence.

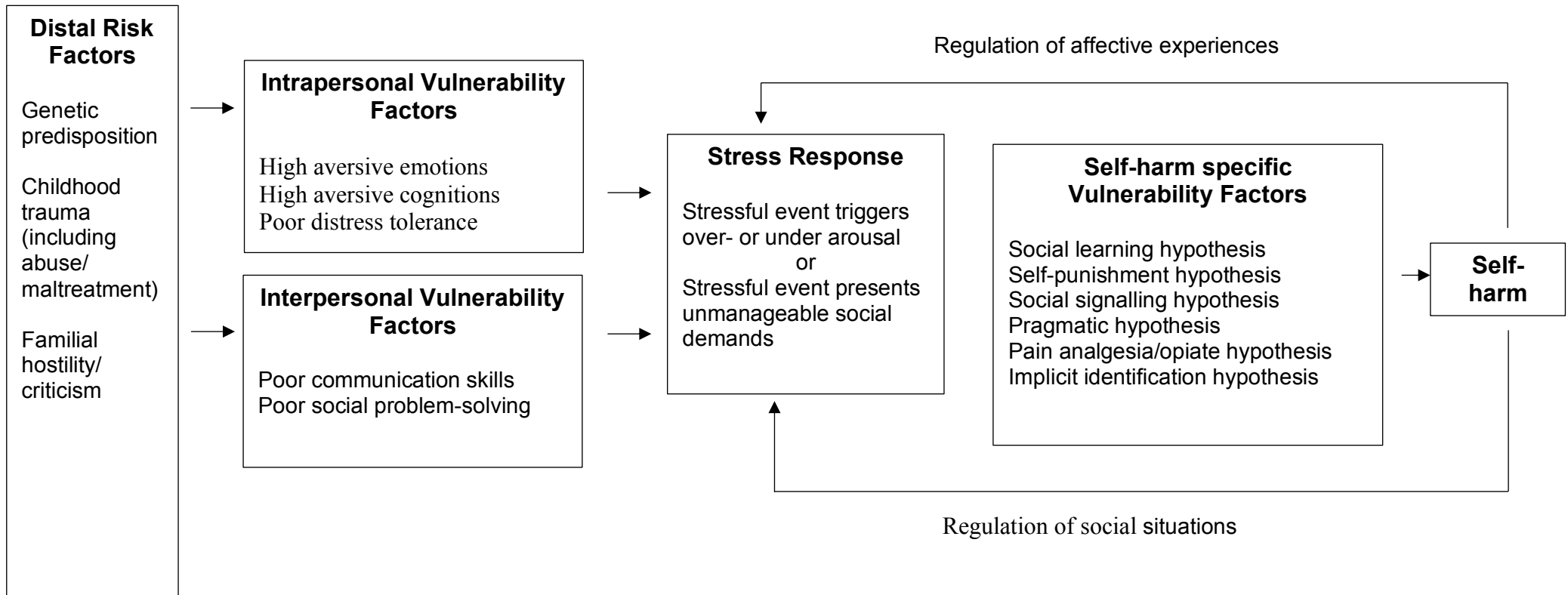
1.4 Functions of self-harm

More recent changes, such as the new NICE (2022) guidelines on how to best manage self-harm to prevent recurrence, are positive and much needed. Yet, self-harm has been poorly managed despite being a major public health care concern and one of the reasons for this is because there has been a lack of clear understanding of the functions of self-harm (Edmondson et al., 2016). One study investigating health care professional's beliefs around self-harm, reported 51% of 195 hospital staff respondents agreed that patients who had self-harmed had done so in order to gain sympathy and/or attention (Gibb et al., 2010). Such beliefs further the stigma around self-harm (and mental health in general) and can have direct negative consequences for those seeking help for self-harm as well as impacting their future help-seeking behaviours (Saunders et al., 2012).

As discussed in the section above, there is substantial empirical evidence in the literature, indicating associations between self-harm and various factors. However, there are only a few models of self-harm considering these factors as a whole, as well as taking into account early childhood experiences, inter and intrapersonal risk factors. Figure 1.1 shows one such theoretical model of self-harm which outlines various risk factors and responses leading to self-harm (Nock, 2009). The model takes into account childhood trauma, current family relationships, genetic predispositions, intrapersonal and interpersonal vulnerability factors, individual stress responses and specific self-harm vulnerability factors. The sub-sections below will critically evaluate the proposed functions of self-harm within the model in addition to other possible functions, not mentioned in the model.

Figure 1.1

An integrated theoretical model of the development and maintenance of self-harm (adapted from Nock, 2009)



1.4.1 Social learning

The six hypotheses suggested by Nock (2009) are proposals for the functions of self-harm. The social learning hypothesis argues that self-harm is a learned response, influenced by watching others or hearing of others engaging in such a behaviour. Many who self-harm do report getting the thought initially as a learned response and there has also been a sharp increase in references made about self-harm in movies, media, social media, songs, and the internet over the past two decades which could amplify the social learning hypothesis (Ahmed et al., 2022; Whitlock et al., 2009).

1.4.2 Self-punishment

Nock's (2009) self-punishment hypothesis is based around self-harm being used as self-punishment because of criticism and/or abuse by others. As demonstrated in figure 1.1, this links in with distal risk factors, as well as explaining the associations found between these risk factors. In young adults particularly, self-criticism may play a role in this hypothesis as research has indicated a link between self-criticism in adolescents and self-harm (Shahmoradi et al., 2021). A comprehensive systematic review investigating individual's reasons for self-harm, found 63% of the studies included in the review (113 studies in total) reported participants gave self-punishment as a reason for self-harm (Edmondson et al., 2016). The need for self-punishment could be further exacerbated by feelings of worthlessness, as frequently described by individuals who self-harm (Doyle et al., 2017; Hetrick et al., 2020).

1.4.3 Communication

Some evidence suggest that self-harm may function as an escalation of communication when other, less severe methods are not effective in feeling heard or getting one's needs met, such as talking things through, shouting etc (Nock et al., 2007). The social signalling hypothesis proposed by Nock (2009) could lead to misconceptions and further the stigma associated with self-harm, as well as nurture the negative attitudes held by many health-care professions towards people who self-harm and present to emergency departments for self-harm (Saunders et al., 2012). Indeed, Doyle and colleagues (2017) did not find a theme supporting the social signalling hypothesis in their study. There is however further research to support self-harm as a function of letting others know they need help and/or are distressed (Lindgren et al., 2022). Self-harm has also been found to function as a personal language although this seemed to be more of a private language and a form of self-expression (Edmondson et al., 2016).

It is important to gain a deeper understanding of this hypothesis and frame it carefully to avoid negative consequences. Moreover, as discussed above, many who self-harm never seek help for their difficulties, prompting for further research around this hypothesis as a function of self-harm.

1.4.4 Pragmatic solution

Nock (2009) suggested that self-harm may be utilised when other soothing behaviours that might serve the same function are not available, such as drug and alcohol use. Self-harm is readily available and can impulsively be employed when the individual feels the need for it. This is plausible, yet it does not reveal the reasons for why, an individual may feel the need to self-harm. One could argue that there are many other readily available coping tools that could be employed instead of self-harm that are far more positive, such as watching tv, going for a walk, calling a friend/helpline etc.

1.4.5 Pain analgesia

Individuals who self-harm frequently report that they feel little to no pain during the act (Nock & Prinstein, 2005). Indeed, research carried out by Van Der Venne et al. (2021) found that adolescents reported significantly higher pain threshold compared to their non-self-harming peers. Moreover, these findings have been replicated in the adult population (Koenig et al., 2016). Van Der Venne et al. (2021) also found significantly reduced basal levels of beta endorphins in their self-harming sample, when compared to a control group. Reduced pain threshold and unpleasantness has been linked with beta endorphins release (Zubieta et al., 2001). This lends support for the opiate hypothesis, which asserts that people self-harm because of reduced pain sensitivity or to maintain an addicted opiate system (Sandman et al., 1995). These neurological findings are interesting and warrant further research, yet they too overlook any psychological and emotional reasons for self-harm which feels like a reductionist understanding of self-harm. This is likely not the main reason for self-harm as it is not in line with research strongly indicating other reasons for self-harm (Edmondson et al., 2016).

1.4.6 Implicit identification

With the implicit identification hypothesis, Nock (2009) explains that people use certain behavioural strategies to regulate emotions, which has served them well in the past. Some may go for a run as they identify themselves as runners, some may smoke a cigarette as they identify as smokers. In line with this, the author argues that some self-harm because this has become part of their identity when emotionally regulating. A similar hypothesis is that of self-harm as habituation or that it becomes like an addiction. When this is felt as

helpful behaviour by the individual, it may become addictive. There is a growing body of evidence that has compared self-harm to addictive behaviour (Knopf, 2022; Worley, 2020). Others have found that people self-harm to achieve a sense of belonging and to not feel like an outsider and this was particularly likely for young adults (Heath et al., 2009). Alternatively, psychodynamic theories have also explored the 'self' in self-harm. In contrast to Nock's (2009) interpretation of implicit identification these theories argue that a sense of self is developed in infancy through attachment, and this is what forms the adult sense of self-identification (Bowlby, 1969; Yakeley & Burbidge-James, 2018). More recently, it has been argued that these early attachment experiences are crucial in how an individual develops this sense of self and that it happens through a process of holistic integration of body and mind, resulting in one's cognitive awareness of the body (Lemma, 2010).

Nock's (2009) model and proposed hypotheses for the functions of self-harm takes into account many different vulnerability factors which makes it a good model for better understanding self-harm. Particularly, it is key how the model includes early experiences of maltreatment and looks at the difference between inter and intrapersonal specific vulnerabilities. Supporting the model is research indicating that self-harm may for some be a reaction to life events (Doyle, et al., 2017), framed in the model as a stress response. However, the six proposed hypotheses seem to lack some emotional depth indicating or explaining why people may self-harm. There are several other important factors that the author did not include in his hypotheses for the functions of self-harm. Some of these include emotional regulation/managing emotions, and alexithymia and will be outlined below.

1.4.7 Other functions of self-harm

1.4.7.1 Managing distress/affect regulation

Several studies have indicated that self-harm can function as a solution to regulate overwhelming emotions (Klonsky, 2007; McManus, 2019; Nock & Prinstein, 2004). This has been described as a relief for emotional pain and distress and to feel calmer (Lindkvist et al., 2021). Edmondson et al. (2016) found that in 93% of studies included in their systematic review exploring reasons for self-harm, participants had shared one of the reasons was to manage and relieve emotional distress. A common description for the function of self-harm to manage distress is that it works as a distraction (Young et al., 2007).

1.4.7.2 Alexithymia

The role of alexithymia in self-harming behaviours has recently attracted a great deal of interest. More specifically, studies have suggested a positive relationship between

alexithymia and self-harm (Iskric et al., 2020; Norman et al., 2020). A definition of alexithymia and how it specifically impacts individuals with ASC as well as its role in self-harm within this group, will be discussed in greater detail further down in this chapter as there is also growing evidence to suggest an association between alexithymia and ASC (Kinnaird et al., 2019).

1.4.7.3 Dissociation

Edmondson et al. (2016) carried out a systematic review of the reasons for self-harm and found that nearly half of participants included from the qualitative studies, reported a link between self-harm and dissociative experiences. They made a distinction between dissociation and alleviation of emotional stress as dissociation was associated with self-harm specifically to feel numb, rather than pursuing containment of unpleasant emotions. One participant phrased it as *“I feel numb – physically and emotionally. I can’t feel my own skin. [After self-harming] I can physically feel again. My senses come back. I get a surge of energy and regain sensation”* (Horne & Csipke, 2009). Edmondson et al. (2016) also found self-harm as a function to meet sensation seeking needs. They reported participants describing it as a rush of adrenaline, helping them feel alive again.

1.4.7.4 Self-harm as a positive experience

Perhaps surprisingly, people engaging in self-harm often refer to it as a positive experience (Edmondson et al., 2016). One participant’s response when questioned how self-harm made him feel, in a study by Russell and colleagues (2010), echoed this: *“comforting, it makes me feel warm and just nice”*. Perini and colleagues (2021) explored brain images and self-reported cognitive states in a sample of adolescents and also reported an important role for positive affect in self-harm. Interestingly, individuals have reported self-harm to serve a direct purpose to avert from attempting suicide. In the systematic review by Edmondson et al. (2016) 15% of respondents in the quantitative research reported self-harm as a coping mechanism for suicidal risk.

1.4.8 Summary of functions of self-harm

There are numerous theories and hypothesis attempting to explain and understand the functions of self-harm. Many of those are supported by empirical evidence as discussed above. This section has only highlighted the most prominent theories in the literature. For this research, it is of interest to explore if the literature suggests self-harm as an alternative function(s) in individuals with ASC. This will be discussed in the subsequent section.

1.5 Autistic Spectrum Condition

ASC is a complex neurodevelopmental condition characterised by a triad of impairment (cognition, imagination, and communication), specific interests and repetitive behaviours (American Psychiatric Association, 2013) which has life-long effects on adaptive functioning (Baron-Cohen, 2004). The condition is typically picked up in a child's early years when parents/carers notice that the child is not developing as expected. This can be as early as 6 months although mean age when ASC is noticed by parents/carers is around 16 months and 10 months in children who have a sibling with ASC. The physical development appears to follow the curve of the expected milestones, yet their mental and emotional progress seem to be different to their peers (Herlihy et al., 2015). Structural and pragmatic language impairments are typically present, resulting in language often being delayed or non-existent (Reindal et al., 2021). Gaze abnormalities, lack of crying for a care giver, lack of smiling and laughing (or any other social interaction) and hypersensitivity are all areas picked up in these young infants/children, as reported by their parents/carers (Waddington et al., 2022). As with most mental health and neurodevelopmental conditions, these differences are evident on a spectrum. Being generally viewed as dimensional, ASC is found amongst the general population with a specific cut-off point used for clinical diagnosis (Constantino, 2011). On the more severe end of the spectrum, the individuals may never develop useful speech (Wodka et al., 2013) or advance the skills needed to live independently as adults (Marriage et al., 2009). On the other hand, some may have such mild symptoms/differences within the dimensional spectrum, that their condition never gets noticed and they do not receive a diagnosis as a child or as an adult (Sheldrick et al., 2017). This is further supported by data demonstrating an increase in adults seeking out an assessment for ASC (Leedham et al., 2020) and that this group is predominantly made up of females (Bargiela et al., 2016). This research is focussing on the group of undiagnosed individuals who have traits of ASC and exploring if they have an increased prevalence of self-harm.

Working in the NHS in several different capacities of mental health, one would often hear professionals discuss a patient being 'a bit autistic'. The researcher noticed this was not isolated to professionals but also referred to amongst the lay community. Working clinically in a learning disability unit in the NHS, the researcher would frequently receive referrals to carry out autism assessments on adults. There was not capacity to carry out assessments for all referrals and the team's view was that this should only be done if it was of benefit for the client at that point in time. How this was identified and agreed upon was less clear. Years later the researcher worked clinically with young adults presenting with various mental health difficulties, such as anxiety and depression, often alongside self-harming which they typically reported as a coping mechanism. Having experience working with individuals with

ASC in the learning disability team, the researcher noticed that several of these young adults also presented with some signs of ASC. This sparked an interest and curiosity in learning more about people who may have traits of autism, but have never been diagnosed, perhaps because it was not severe enough or lack of capacity in the NHS, and self-harming behaviours. How did they cope with distress, such as anxiety and depression? How would they cope with other life stressors or indeed day to day activities which to most may not be stressful, such as having to engage socially with peers and colleagues? Perhaps they were experiencing anxiety and low moods as a result of struggling with events which most take for granted and enjoy.

Individuals with ASC have a higher mortality rate generally, including death by suicide (Hirvikoski et al., 2016). The fact that individuals with ASC engage in more risky behaviours which increase death by accidental injuries may be associated with the findings that studies have consistently found the ASC population to also have a high co-occurrence of ADHD (Rong et al., 2021), known for engaging in risky behaviours, and have an increased premature morbidity, regardless of ASC diagnostic status (London & Landes, 2022). The ASC population are also more likely to have co-occurring psychiatric disorders (Lai et al., 2019). A recent systematic review and meta-analysis found that about 70% of individuals with ASC also have a comorbid psychiatric disorder (ADHD being the most common comorbid disorder) and about 40% have two or more comorbid disorders which are also associated with increased risk of suicide. They reported mood and anxiety disorders as some of the most common (after ADHD) and substance misuse and eating disorders as the least common comorbidities found within the ASC population (Lugo-Marín et al., 2019). The increased risk of self-harm and death by suicide in the ASC population will be evaluated in greater detail further below.

1.5.1 Male/female ASC ratio

ASC is more prevalent in males than females with a ratio frequently reported of 4:1 (Halladay et al., 2015; Lai & Cohen, 2015; Posserud et al., 2021;). Consequently, theories were developed, assuming an extreme male brain (EMB), attempting to explain the gender prevalence difference in ASC (Baron-Cohen, 2002; Wen & Wen, 2014). The EMB theory assumes individuals with ASC generally have weak emphasising skills and strong systemising skills. Females on average have stronger emphasising skills whilst males on average have stronger systemising skills, supporting the EMB theory (Baron-Cohen, 2009). Evidence also suggest that the gender difference is due to genetic, epigenetic, endocrine, and environmental factors in the pathophysiological makeup of ASC (Baird et al., 2011; Kendall et al., 2013; Lai et al., 2015). However, there is growing evidence to suggest that

this ratio is not a true representation of the male/female ratio and that females are underdiagnosed as traditional assessments used, pick up on ASC in males more than in females (Rynkiewicz et al., 2016). There is further evidence to suggest that females experience ASC differently to males, hence this would explain their symptoms and experiences not being picked up through traditional assessment methods (Gould & Ashton-Smith, 2011). Females with ASC (or traits of ASC) are reportedly more likely to internalise their struggles which may then present as anxiety, depression or eating disorders resulting in misdiagnosis or missed diagnosis (Mandy et al., 2022).

In the last decade literature around compensatory strategies such as camouflaging of their difficulties or masking of traits in females, has emerged (Cassidy et al., 2018b) and several studies have indicated that the male/female ratio in reality is more likely to be 3:1 (Loomes et al., 2017; Sun et al., 2014). Interestingly, the ASC ratio between males and females is smaller in adults than in children (Posserud et al., 2021), suggesting that women may seek out a diagnosis later in adulthood, supporting theories there may be a diagnostic bias in male children (Baron-Cohen et al., 2011).

Females are significantly more likely to receive a diagnosis of ASC later in life, particularly females with average to above average intellectual abilities (Begeer et al., 2013; Mandy et al., 2022). One explanation for this is that there appears to be a bias in diagnosing male children with ASC, possibly as females display less severe symptoms, atypical symptoms and tend to mask their symptoms altogether (Baron-Cohen et al., 2011). Research has suggested that females are more associated with distinct/atypical traits of ASC compared to males, and some studies have referred to this as evidence for a presence of an explicit female phenotype of ASC (Bargiela et al., 2016). Lai et al. (2015) based their theory of female phenotype on their ability to camouflage their traits/symptoms of ASC. Camouflaging symptoms of ASC will be elaborated in a section of this chapter, to follow.

This is important knowledge and of great interest for the current research as females are more likely to self-harm, regardless of diagnostic status (NICE, 2020). An overwhelming majority of respondents in the quantitative part of this current research were females and the seven participants that were subsequently also interviewed as part of the qualitative strand, were all females. The link between the gender ratio found in ASC and how ASC relate to higher rates of self-harm and suicide, will be discussed in greater detail in Chapter 4.

1.5.2 Camouflaging

The notions of masking and camouflaging of ASC symptoms have more recently attracted a great deal of attention and it could, at least to some extent, explain the gender ratio discrepancy in ASC (Lai et al., 2015). Research has also suggested that camouflaging can explain the late or missed diagnosis of females with ASC (Kirkovski et al., 2013).

Camouflaging refers to strategies employed to hide behaviours associated with ASC. This involves using techniques which make them appear socially competent (or more so than if they had not been camouflaging) and other strategies to hide their difficulties from others, a coping strategy frequently seen in high functioning females with ASC (Bargiela, 2016; Lai and Baron-Cohen, 2015). This is a very taxing and exhausting technique to employ during most social situations, including time spent at school and work and it has negative implications in their daily life and overall mental well-being (Tubio-Fungueirino et al., 2020). These complex copying behaviours as well as frequent masking of traits, function as adaptations to 'fit in'. They are also likely to have an impact on diagnosis, or a lack thereof (Lai et al., 2015). This could mean that individuals who receive a diagnosis later in life may have spent years (including most or all their childhoods) feeling different and experienced emotional distress, without understanding why they were feeling this way (Leedham et al., 2020). The impact of this was researched by South and colleagues (2019) in a sample of females with traits of autism. They reported that females who had high traits of ASC (regardless of diagnostic status) found social situations confusing and exhausting and this was associated with higher rates of suicidal thoughts and behaviours. This was further supported by Richards et al. (2019) who also found that females with traits of ASC (but no diagnosis) reported higher rates of depression, suicidal thoughts, and behaviours. Attwood (2006) reported that females in particular camouflaged symptoms of ASC throughout their life which could lead to a perception that these individuals are seemingly doing well, coping, socially successful and generally happy in life. However South et al. (2019) found that women with traits of ASC, regardless of ASC diagnostic status, were consistently experiencing unrelenting depression and thoughts of suicide.

Camouflaging also occurs in males with traits of ASC however a comprehensive systematic review on the subject found the numbers to be far greater in females (Cook et al., 2021).

The reasons for this are likely multi-fold. Attwood (2012) suggested that females with ASC feel greater pressure to fit into social situations and therefore more likely to engage in camouflaging.

1.6 Self-harm in individuals with ASC

One of the preceding sections in this chapter outlined some of the risk factors associated with self-harm in the general population. In this section the literature will be evaluated to identify if there are specific risk factors associated with self-harm in the ASC population which differ from those identified in the general population. The inter- and intrapersonal vulnerability factors outlined in Nock's (2009) model may be heightened for autistic individuals which could impact how these individuals deal with distress as well as how it affects their help seeking behaviours. The evidence exploring prevalence of self-harm in individuals with ASC will also be critically evaluated.

Some of the factors associated with self-harm in the general population include socio-economic background, poorly educated parents, poor mental health, and neurodevelopmental conditions. Malhi & Sankhyan (2020) found some of the same risk factors were positively correlated in a sample of children with ASC, however a regression analysis showed that the only significant predictor for self-harm in their sample was severity of ASC. They also found that participants who had an intellectual disability (ID) were significantly more likely to self-harm compared to those without. This is in line with previous findings, reporting that self-harming behaviours such as head-banging and slapping hands/face are common in people with ASC who also have intellectual disabilities (Steenfeldt-Kristensen et al., 2020). This may be explained by the difference in function and definition in self-harm and self-injurious behaviour (SIB), commonly seen in individuals with ID (Chiang 2008). Therefore, it is important to explore the prevalence of self-harm in individuals with ASC, without ID. License and colleagues (2019) did this in a sample of children (0-18 years of age). They discovered a high prevalence of self-harm in their sample (24.1%) compared to the neurotypical individuals (5-17%), (Swannell et al., 2014). However, the prevalence of self-harm remained significantly lower in the ASC child sample compared to an ASC adult sample (50%), (Maddox et al., 2017). Interestingly, a separate study found no positive association between severity of ASC and self-harm in an adult sample with ASC (Moseley et al., 2019) which may account for why there is a significantly higher rate of self-harm in adults with ASC compared to children with ASC, despite the child ASC population being significantly more likely to self-harm compared to neurotypical children.

A Finnish cohort study found no significant difference in self-harm prevalence between individuals with ASC and those without ASC, once adjusted for psychiatric disorders (Jokiranta-Olkonienemi et al., 2021). However, there are a few drawbacks to this study which may have impacted their findings. They defined self-harm as suicide attempt or other self-inflicted harm which required inpatient treatment in a general hospital or outpatient treatment

in a psychiatric hospital. This narrowed their otherwise very large cohort sample (ASC group n=4695, non-ASC group n=18,450) down to 18 subjects with ASC and 27 non-ASC subjects. Furthermore, difficulties with social interaction and communication in individuals with ASC, may significantly reduce and limit their capabilities and desire to seek help for self-harm. Thus, the prevalence of self-harm in the ASC population may be far higher than reported and seen presented at emergency departments and/or other (mental) health alliances (Hirvikoski et al., 2016). This could explain why Jokiranta-Olkonien and colleagues (2021) reported such low numbers of self-harm in their ASC group and found no significant difference between the comparison group in prevalence of self-harm. Indeed, a recent cohort study from London did find a significantly increased risk of self-harm in male individuals with ASC, although in this study too, self-harm was identified following presentation to ED (Widnall et al., 2022). Interestingly, they did not observe the same association for females with ASC. There is however vast evidence suggesting that the ASC population are significantly more likely to self-harm compared to the general population. One study that also compared an ASC sample to the general population, had analysed the data separately for males and females, and found that their ASC subjects regardless of gender, were engaging in self-harm far more than the subjects from the general population and that this difference was significant (Cassidy et al., 2018b). In contrary to the findings by Widnall et al. (2022), they found females in both groups to be significantly more likely to self-harm than males. The prevalence percentages are displayed in Table 1.1 alongside the rates of depression and anxiety where there is also a higher prevalence in the ASC population.

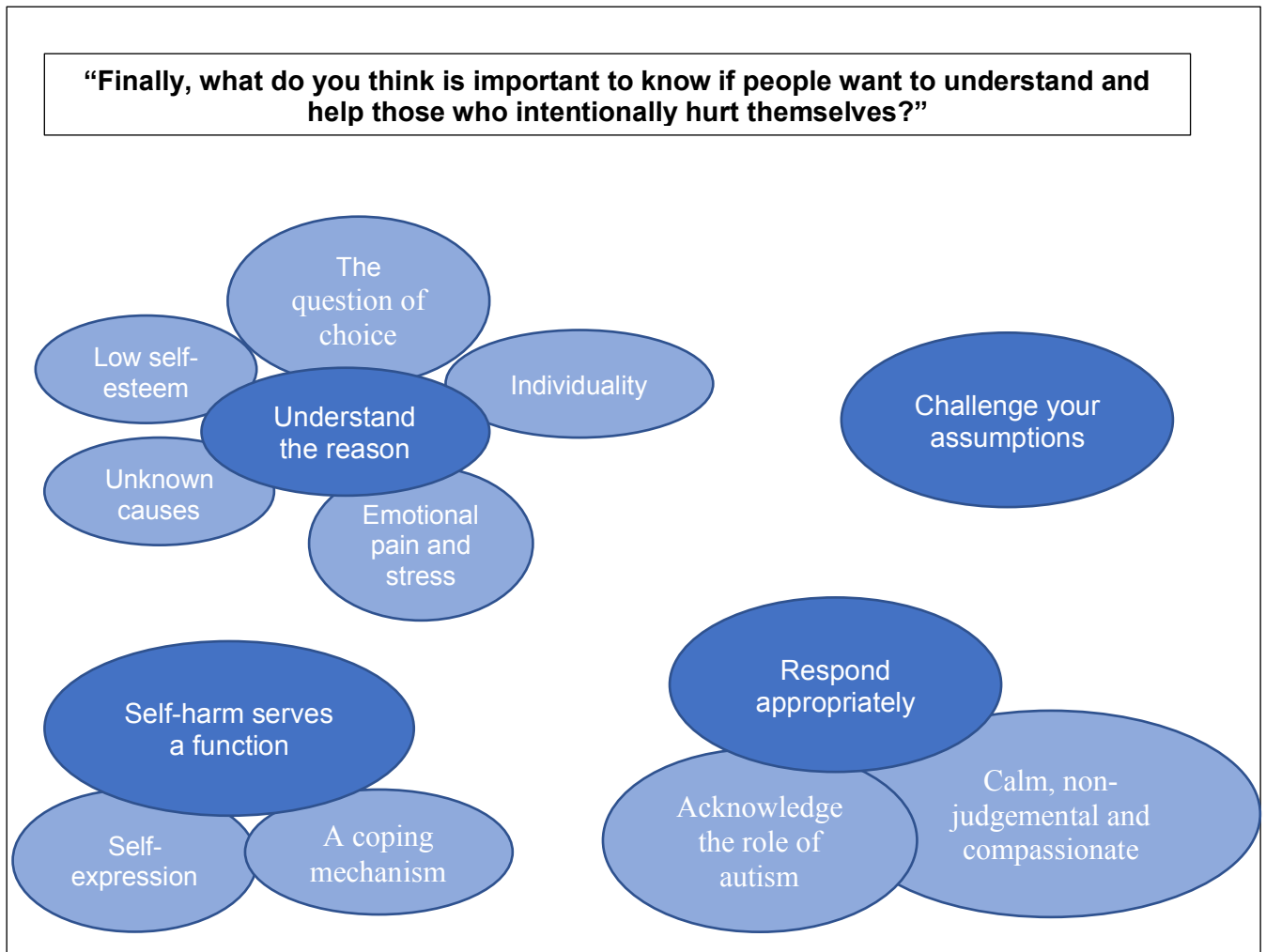
Table 1.1*Group characteristics from the study by Cassidy et al. (2018b)*

Variables	Group			
	GP male (n=54) Mean SD/n (%)	GP female (n=115)	ASC male (n=65)	ASC female (n=99)
Age	39.11 (10.09)	41.48 (11.18)	41.52 (11.73)	38.89 (10.47)
AQ50 total score	22.96 (8.56)	18.43 (7.12)	35.38 (7.5)	37.1 (8.33)
Age diagnosed with ASC	-	-	34.55 (14.75)	35.06 (11.83)
% Lifetime camouflage	-	-	58 (89.2)	90 (90.9)
Camouflage total score	-	-	12.9 (4.06)	14.7 (74)
% NSSI	18 (33.3)	32 (28.1)	35 (53.8)	71 (74)
Suicidality				
SBQ-R total score	7.48 (3.7)	6.36 (3.08)	10.14 (3.99)	10.56 (3.98)
% ≥ GP cut-off	27 (50)	49 (42.6)	52 (80)	79 (79.8)
% ≥ psychiatric cut-off	22 (40.7)	35 (30.4)	45 (69.2)	73 (73.7)
% Lifetime suicide attempt	7 (13)	7 (6.1)	21 (32.3)	42 (42.4)
Living independently				
Living with parents	15 (27.8)	26 (22.6)	18 (27.7)	30 (30.3)
Living with a partner and/or dependent(s)	5 (9.3)	5 (4.3)	15 (23.1)	15 (15.2)
Employed	29 (53.7)	71 (61.7)	21 (32.3)	44 (44.4)
≥1 mental health or other condition	41 (75.9)	94 (81.7)	30 (46.2)	51 (51.5)
Depression	29 (53.7)	66 (57.4)	51 (78.5)	92 (92.9)
anxiety	25 (46.3)	51 (44.3)	47 (72.3)	84 (84.8)
OCD	19 (35.2)	42 (36.5)	40 (61.5)	77 (77.8)
ADHD	0 (0)	3 (2.6)	7 (10.8)	17 (17.2)
	0 (0)	0 (0)	2 (3.1)	9 (9.1)

Mosely et al. (2019) explored the functions of self-harm in adults with ASC. The qualitative part of this mixed methods research allowed participants to describe, in their own words, why they were self-harming. Participants statements were split into 6 categories (themes), which could then be reported as average number of statements endorsed in each category. The two categories with the highest percentages were 'affective-imbalance: low pressure' (30%) and 'affective-imbalance: high pressure' (27%). As an example, some of the statements in the 'affective-imbalance: low pressure' group related to low moods and statements within the 'affective-imbalance: high pressure' group related to feeling high energy. The third most reported function of self-harm was 'self-punishment and deterrence' (19%), followed by 'sensation seeking' (17%) and social communication and expression (4%). This is further supported by previous findings that individuals with ASC struggle with social communication and expression compared to neurotypical individuals (NT), (APA, 2013; Wilson et al., 2019). Figure 1.2 depicts the importance of understanding that self-harm serves a function. Here it was split into two sub-themes: 'self-expression' and 'a coping mechanism'. The qualitative part of this paper also found that what helped their participants to reduce self-harm was a greater understanding of themselves, more specifically, emotional awareness of themselves. Another interesting finding from the paper, was that their participants with ASC reported that psychotherapy was not always helpful and at worst harmful. One participant reported that a group therapy experience had been inappropriate and traumatic. Many further statements indicated that therapy had been unhelpful although the reasons for this was not elaborated further. It could be that the participants themselves struggled to understand why therapy had been unhelpful. This research is important because it highlights that the functions of self-harm in individuals with ASC may be different from those without ASC, or that there are additional functions for self-harm in this group, and therefore interventions may be unhelpful, or worse, harmful. Importantly, their qualitative data also highlighted that individuals with ASC who had self-harmed, found it important that their behaviour was responded to calmly and with compassion and that there was an acknowledgment of the role of ASC – this can be seen in the thematic map in Figure 1.2 under the theme 'respond appropriately'. Participants also expressed a need around acknowledging the role of autism when responding to their self-harm, highlighting the importance of identifying ASC (regardless of diagnostic status) in the self-harming population.

Figure 1.2

Thematic map depicting four themes and the subthemes when asked what is important to understand about those who self-harm (adapted from Moseley et al., 2019).



1.6.1 Alexithymia

More recently, research has investigated alexithymia in ASC. Alexithymia is a broad term for difficulties in identifying and describing emotions as well as externalised cognition. People with alexithymia report struggling in distinguishing between emotional and bodily sensations. There are reportedly approximately 1 in 10 who experience alexithymia, although this figure is expected to be far higher in the neurodivergent population and those with mental health conditions such as depression and anxiety (Goerlich, 2018). Alexithymia is widely acknowledged as a trans-diagnostic feature in a variety of neurodevelopmental disorders, including ASC, due to its inherent function in social-emotional processing. One study showed a significant positive association between autistic traits and alexithymia traits

(Vaiouli & Panayiotou, 2021). Furthermore, a systematic review investigating prevalence of self-harm in people with alexithymia, found a positive correlation between the two, although this was only found for the sub-component 'difficulty identifying feelings', and not for the 'externally thinking' sub-component of alexithymia (Norman et al., 2020).

1.7 Suicide

According to the World Health Organisation (WHO) there are an estimated 700,000 worldwide deaths by suicide each year, making it the fourth leading cause of death in 15–29-year-olds (WHO, 2019 - Worldwide Suicide in 2019). In England and Wales alone the number of deaths recorded by suicide in 2018 was 6,507 (Mental Health Foundation, Mental Health Statistics: Suicide). From 2001 to 2018, suicide was the leading cause of death for both males and females aged 20 to 34 years in England and Wales, for all years observed, accounting for 27.1% of male deaths and 16.7% of female deaths for this age group. In 2021 there were 5583 registered suicides in England and Wales (data derived from Office for National Statistics, 2021).

Suicide is a complex phenomenon, influenced by many different biopsychosocial factors including (but not limited to) age, gender, marital status, past suicidal behaviours, family psychiatric history, economic factors, employment, and mental health co-morbid difficulties (Mental Health Foundation, 2016 - Mental Health Statistics: Suicide). Suicide is frequently referred to as a preventable form of death although the complex phenomenon is very difficult to predict due to the mix of factors playing a role in the risk assessment (WHO, 2012). Crucially, self-harm is known to be an important predictor of suicide (DoH, 2017; Hawton et al., 2012; Tyrer, 2004; WHO, 2014).

1.8 Suicide in individuals with ASC

Recent research has indicated that people with ASC are more likely to die by suicide than the general population (Hedley & Uljarevic, 2018; Hirvikoski et al., 2016). However, little is known about the reasons for this. The research discussed in the paragraph above indicated that self-harm is a predictive factor for suicide and attempted suicide. This evidence then prompts a hypothesis that individuals with ASC are more likely to self-harm compared to the general population as they are more likely to die by suicide. The evidence for this will be evaluated in this section.

Hirvikoski et al. (2016) investigated premature mortality in individuals with ASC through Swedish cohort data and found that significantly more in the ASC group had died by suicide compared to the control group. They also reported numbers from their ASC group after they

had split them into low-functioning ASC and high-functioning ASC. The rate of death by suicide in their sample was 0.11% in the low-functioning group and 0.36% in the high-functioning group. Furthermore, they compared control males and females to the ASC group and interestingly found that females with ASC were more likely to die by suicide than the males in same group. This finding contrasts with the overall rates published by the WHO which report more men die by suicide than woman (WHO, 2019, Suicide Fact Sheet) as well as findings, as discussed above, which indicate that males are more likely to be diagnosed with ASC than females. Cassidy et al. (2014) found that individuals with ASC were more likely to experience suicidal ideations compared with the general population in the UK. One of the reasons for these findings may be that there is a high prevalence of depression among the ASC population and depression also increases the risk for suicide (Chen et al., 2017). In fact, a systematic review found that depression is the most common mental health disorder found in people who die by suicide (Hawton et al., 2013).

Research carried out by Takara and Kondo (2014) support the above findings. They also found that the ASC group was significantly more likely to have attempted suicide than the non-ASC group. Moreover, they reported that the ASC group were most likely to attempt suicide by hanging compared to the non-ASC group who were more likely to attempt suicide by overdose. Hanging is considered a more lethal suicide attempt. However, they did not find a significant link between higher Autism-Spectrum Quotient (AQ) scores and suicide attempts, and they did not measure autistic traits in their non-ASC sample. Thus, this would not support a hypothesis that merely having traits of ASC, but not necessarily meeting all criteria for a diagnosis of ASC according to the DSM 5, would indicate a higher risk of suicide than the general population.

A recent Finish cohort study investigating mortality and self-harm in individuals with ASC found that the ASC group were at increased risk of premature mortality for natural causes and suicide, supporting previous findings. However, once adjusted for co-morbid psychiatric disorders, the results indicating that the ASC group were more likely to die by suicide, were no longer significant, indicating that psychiatric disorders in individuals with ASC explained the increase in suicide within this group (Jokiranta-Olkonemi et al., 2020). To the best of the author's knowledge, this is one of few papers that still did not find an increased mortality by suicide in the ASC group, when adjusted for co-occurring psychiatric disorders. The issues around sample sizes in this study was critically evaluated above.

Indeed, a recent comprehensive systematic review and meta-analysis of 31 studies investigating self-harm and suicidality in both children and adults found that ASC was

associated with more than a 3-fold increase in odds of self-harm and suicidality, despite adjusting for co-occurring psychiatric disorders as well as other factors that also increase risk of self-harm and suicidality (Blanchard et al., 2021). This meta-analysis included the study by Jokiranta-Olkonien et al. (2020).

There may be several reasons why this specific study by Jokiranta-Olkonien et al. (2021) did not find the same prevalence of suicidality in the ASC population, once analysis was adjusted for co-occurring psychiatric disorders. All the participants were part of a Finnish cohort study. Research has indicated a different strategy in Finland to ASC identification, treatment, and rehabilitation regardless of severity, the family's social status as well as including the whole family in their ASC strategies. This is not observed in countries such as the UK and the USA (Dindar & Loukusa, 2019) and this may have impacted their findings. However, other Scandinavian countries which could perhaps more readily be compared to a Finnish cohort than data from the UK or USA, did not replicate their findings. For example, a Danish retrospective cohort study discovered that people with ASC had a greater prevalence of suicide attempts and actual suicide. They also reported that more than 90% of people with ASC in their sample who attempted or died by suicide had another comorbid disorder, which was proven to be a significant risk factor (Kölves et al., 2021).

Cassidy et al. (2018b) investigated risk markers for suicidality in a group of 164 autistic adults. Part of their findings have been outlined in table 1.1 where it can be seen, that when compared to the general population, the ASC group had significantly higher SBQ-R scores, which was the instrument used to measure suicidality, although there was no difference found between males and females within the ASC group. They also found that autistic adults were significantly more likely to report lifetime self-harm (63.3%) compared to the general population (29.8%), and within the ASC group this difference was also significantly higher for autistic females compared to autistic males. Their results also investigated predictors of suicidality in ASC and found that lifetime self-harm, unmet support needs, anxiety, depression, ADHD, camouflaging and satisfaction with living arrangements all correlated significantly with suicidality (as measured by total SBQ-R scores). Their findings were consistent with previous studies, indicating that adults with ASC are at a significantly increased risk of both self-harm and suicide compared to the general population.

The authors also developed a set of questions to investigate the extent of camouflaging in their participants. Examples of questions asked to determine this were "have you tried to camouflage or mask your characteristics of ASC to cope with social situations", "have you ever tried to copy or mimic other people's behaviour to try and fit in"? The responses were then split into social situations or other situations and the overall frequency they spent

camouflaging was calculated as a sum (including number of areas, frequency, and overall amount) with maximum total of 20 overall. Their internal consistency for these questions was acceptable ($\alpha = .75$). They found no significant difference between autistic males and females in camouflaging to fit into social situations although the female ASC group scored significantly higher on the camouflaging questionnaire overall. Furthermore, they carried out regression analysis and found camouflaging total scores to account significantly for SBQ-R scores. Camouflaging and age of ASC diagnosis did not significantly correlate. However, the link with suicidality may be, at least in part, independent of mental health because camouflaging also significantly explained additional variance in suicidality beyond depression or anxiety. In addition, the association between ASC and suicidality remained even when several demographics and diagnostic factors were controlled for (known to also increase suicidality in the general population, such as employment, depression, anxiety, and satisfaction with living arrangements).

In common with risks of self-harm, there are many overlapping risk factors associated with suicide in the general population and the ASC population. However, the literature evaluated in this section suggest that ASC in itself is a risk factor for both self-harm and suicide, even when adjusting for psychiatric comorbidities (Cassidy et al., 2018b; Chen et al., 2017).

1.9 Timing of ASC diagnosis

There is a great variability in when people receive an ASC diagnosis. ASC can be diagnosed from 2 years of age although typically children with ASC only receive a diagnosis after they have started education (Daniels & Mandell, 2014). Some do not get a diagnose until their adolescent years whilst others reach adulthood with their condition unrecognised (Hosozawa et al., 2020). Research has indicated that late diagnosis is associated with more mental health problems across their life span, compared to those who received an earlier diagnosis (Mandy et al., 2022).

Certainly, many other factors influence later mental health. Mandy and colleagues (2022) investigated emotional, behavioural, and social difficulties (EBSDs) and how this associated with timing of diagnosis of ASC. They analysed longitudinal data from the Millennium Cohort Study, a population-based UK birth cohort data set. They included EBSDs of children with ASC ranging from the ages of 3-14 years old. They accounted for other variables which could have influenced EBSDs and ran adjusted models in their analysis, accordingly. The variables they accounted for included the late-diagnosed group having higher IQ, more females than males, older mothers, more educated mothers and that they were more likely

to have late-diagnosed ADD/ADHD. Whilst having accounted for these compounding variables, they still found that the late-diagnosed children (they defined late-diagnosed children as those who received a diagnosis of ASC after the age of 7 years) had a faster annual increase in EBSDs and by the age of 14 years they had significantly higher levels of EBSD's. This indicates that timing of ASC is crucial for future mental health outcomes.

When comparing children who received a timely diagnosis of ASC, the children who are late-diagnosed with ASC tend to have; less severe symptoms (as on a spectrum as described above), (Sheldrick et al., 2017), better language skills and higher IQ (Jónsdóttir et al., 2011), be female (Leedham, 2020), parents who are less educated (Bickel et al., 2015), and be non-white (Daniels & Mandell, 2014).

Hosozawa et al. (2020) investigated the timing of diagnosis and how this affected self-harm in children and adolescents with ASC and without ASC ranging from the ages of 5–14-year-old. They analysed data from the UK Millennium Cohort Study and reported that children who were diagnosed after the age of 11 were most likely to engage in self-harm by the age of 14 as well as having depressive symptoms. Their results suggest that timing of diagnosis is associated with occurrence of self-harm. The earlier a diagnosis of ASC is received, the better the prognosis for their future mental health. As self-harm is a predictor of suicide, early identification may consequently also prevent some suicides in individuals with ASC.

1.10 Self-harm and suicide in individuals with traits of ASC (not diagnosed)

In the paragraphs above, the literature indicating elevated rates of self-harm, suicidal behaviours, and death by suicide in the ASC population, was evaluated. We also looked at research on late, missed and misdiagnosis of ASC. This raises the question whether there is a 'missed population' with traits of ASC, without a diagnosis, who are at risk of elevated self-harm, suicidal behaviour, and suicide? There is some evidence that suggest such an association. Richards et al. (2019) investigated whether people with traits of ASC (but no diagnosis) were more likely to have attempted suicide. They recruited participants via suicide prevention websites, research data bases and social media. Their sample included all participants who had completed the Autism Quotient 50 (AQ) and reported that they had attempted suicide ($n = 132$). They compared the total AQ scores (0-50) and found that the overall sample had a mean AQ score of 25.83 (SD = 10.354); those participants who had attempted suicide once had a mean score of 22.80 (SD = 11.208); and those participants who had attempted suicide more than once had a mean AQ score of 27.63 (SD = 9.665). Comparatively, Ruzich et al. (2015) conducted a meta-analysis which included 6934 non-

clinical participants across 78 studies and found them to have a mean AQ score of 16.94 (SD = 8.671). The AQ50 consists of five subscales and was developed to identify autistic traits in people with average or above average IQ. A score of ≥ 32 was suggested to indicate presence of autism. However, a score of ≥ 26 has been demonstrated to indicate a good validity in a clinically referred sample (Woodbury-Smith et al, 2005). This indicates that even without reaching clinically significant AQ scores for the purpose of diagnosis, higher levels of autistic traits could indicate a higher risk of suicide.

Richards et al. (2019) reported an elevated level of autistic traits (total AQ scores) in the overall sample (M=25.83). This could be explained by the fact that they also recruited via their own research databases and that they are a major ASC research centre in the UK, hence attracting individuals more likely to suspect they have ASC or traits of ASC. This is one aspect that the current suggested study would aim to avoid by remaining more generalisable, and by including those who are undiagnosed but whose ASC traits may indicate a higher risk of suicide. Richards et al. (2019) did recognise this limitation to their study. They reported numbers once they had removed participants with a diagnosis or suspected ASC which gave them a total of 98 participants remaining. This group had a mean total AQ score of 22.45 which, in comparison to Ruzich et al. (2015), is still significantly higher. Those numbers still clearly indicate that traits of ASC (excluding the ASC diagnosed sample) are high. Richards et al. (2019) included 32 participants: 17 male, 110 female, and five marked 'other' or did not respond. The disproportionate number of females could have skewed the results, as previous studies have suggested that within the ASC group, females are more likely to die by suicide than males (Hirvikoski et al., 2016). Females are also more likely to self-harm (NICE, 2020) and self-harm is an important predictor of suicide and attempted suicide (DoH, 2017; Hawton et al., 2015; Tyrer, 2004; WHO, 2014). However, there is a risk that the current study will run into similar issues as females are more likely than males to seek help for self-harm and suicide attempts (Canner, J. K. et al., 2018), which may mean they are more likely to join online support groups where recruitment for the current research was mainly carried out. The implications of this will be discussed further in Chapter 4.

More precise estimates of prevalence of self-harm within a population with traits of ASC are needed. This is important for how helping professions, carers and society view and treat self-harm. If we assumed that close to 50% of the self-harming population, also had traits of ASC above clinical cut-off score, would we not expect that a different approach to self-harm might be needed? Should our interventions be different? Tailored specifically to someone

with ASC? Of course, it would look different which is why a better understanding of this dilemma could encourage screening for ASC in individuals who present with self-harm.

1.11 Summary of literature review

This chapter has given a brief overview of ASC, self-harm and suicide as well as critically evaluated the literature around potential reasons for why people self-harm. There are many compounding factors that contribute and influence self-harm, yet the literature has consistently indicated a significant positive association between the ASC population and both self-harm and suicide that is significantly greater than found in the general population (Blanchard et al., 2021; Cassidy et al., 2018b; Hirvikoski et al., 2016). The literature indicates that self-harm is a predictor of attempted and completed suicide. Statistics also show that people with ASC are significantly more likely to die by suicide than individuals without ASC. Many positive changes have been implemented in the UK to improve prevention and interventions. Yet, this chapter also looked at how ASC can go unnoticed and undiagnosed, hypothesising that there is a potential 'lost' group of people, with traits of ASC that would warrant further assessment for potential diagnosis. To the knowledge of the author, there is no research exploring self-harm in individuals with traits of ASC and only one paper that has investigated suicide in people with traits of ASC (Richards et al., 2019).

Increased vulnerability such as co-morbid mental health conditions as well as a pressure to camouflage and fit in with societal norms may also increase self-harm and suicide risk. There has been some research on this but as a whole it remains understudied. Despite research in the last decade consistently pointing towards elevated rates of suicidality in the ASC population, the reasons for this remain poorly understood (Cassidy et al., 2018a).

The gender gap in suicide is overall narrowing (DoH, 2017) and interestingly, the gender gap in suicide in the ASC population are far more uniform (Hirvikoski et al., 2016). This may be due to social connections acting as a protective factor in the general population whereas for women with ASC, developing and maintaining such social connections may be difficult. Furthermore, the male gender dominance as known in ASC, is likely not accurate, with many high functioning females camouflaging and therefore not receiving a diagnosis till later in life or never. The literature supports this through findings of high traits of ASC in individuals with no diagnosis (Bargiela et al., 2016; Richards et al., 2019).

Self-harm is one of the greatest risk factors for suicide (DoH, 2017; Hawton et al., 2015; Tyrer, 2004; WHO, 2014). Suicidality is greater in the ASC population. We must understand

why this is heightened within this population to offer better prevention and reduce mortality within this group. There is also evidence to suggest that self-harm, suicidal thoughts, and behaviours are increased in the ASC population too. An awareness around this can aid prevention and support better quality of life in these individuals. However, what if there is a large group of individuals with traits of ASC who seemingly function 'normal' according to societal norms, and therefore never receive a diagnosis of ASC? What is the cost and impact on this group, emotionally and physically? This current research aims to investigate this group, firstly by detecting the prevalence of individuals with traits of ASC in the self-harming population and then to better understand their past and current experiences.

1.12 Relevance to Counselling Psychology

This area of research is particularly important for counselling psychologists who are likely to work with some clients whom we believe, using our clinical judgement, have traits of ASC. Do we weight (enough) importance to those traits with regards to risk, our clinical outcomes, and the future prospects for those individuals? As mentioned above, emerging research is suggesting a strong correlation between an ASC diagnosis and suicide risk, as well as increased risk of suicide in people with ASC traits (but no diagnosis). We should question how this emerging research is (should be) guiding our clinical practice which will be discussed further in Chapter 4.

The study has purposely chosen the subscale of the AQ50 as the AQ10 is more viable in clinical practice (Booth et al., 2013). Using a shorter screening tool would make it more plausible to be used, potentially more routinely, in practice. Counselling psychologists and other professionals might use the AQ10 as an added measure for their risk assessment, not necessarily for diagnosis but for detection of traits of ASC and such a detection may aid the risk assessment and treatment protocol, including the psychological formulation.

If the hypothesis is accepted, a detection of *traits* of ASC may be valuable information for counselling psychologists and their clients in terms of risk of self-harm/suicide and in better understanding the difficulties the client is presenting. Furthermore, and perhaps most important for counselling psychologists, it could provide our clients with a better understanding of themselves and the difficulties they present. Their treatment options should be tailored individually to them with ASC in mind as well as considering how these individuals are responded to immediately at a first meeting as this could be a deciding factor for whether they reach out for help again, or not. How initial response is provided and received, as well as type of intervention offered by health care providers is important for ongoing treatment adherence and future outcome including readmission rates (McCabe

et al., 2018). When attending services for self-harm or attempted suicide, especially within a physical health environment, individuals are often scowled upon. There is still much stigma around self-harm and attitudes of health professionals, such as in emergency departments, are often negative towards those who present with self-inflicted injuries (McCann et al., 2006).

This research is interested in people with traits of ASC who do not have a diagnosis of ASC. How do they cope with emotional distress? Not having access to the support offered to individuals with ASC or even an understanding of why they are experiencing these specific difficulties, what tools do they rely on to manage distress? Based on the literature evaluated in this chapter, the researcher hypothesised that there would be a positive association between self-harm and traits of ASC. As this group remains unidentified, their experiences to date are important to understand so we can raise awareness of the importance of identifying ASC early to offer better outcomes and quality of life.

1.13 Gaps identified in the literature

The studies reviewed in this chapter have employed qualitative, quantitative, and mixed methods design as well as comprehensive systematic reviews. Particularly the literature around reasons for and functions of self-harm included a variety of designs and methodologies which can aid generalisability and give a greater, more meaningful understanding of the issue, as told by those impacted. This too was true for the literature investigating self-harm in individuals with ASC despite the fact it remains specifically unclear why this group is at such an increased risk of both self-harm and suicide. As identified by the authors, more qualitative and mixed methods studies are needed to better understand this (Moseley et al., 2019). However, the literature around self-harm and suicidal behaviours in individuals with traits of ASC who do not have a diagnosis, is very scarce. The researcher only identified three papers in the current evidence base that all used quantitative measures and focussed on risk of suicide in this population, rather than self-harm. Hence, the current research aims to fill the gap in the literature by carrying out a mixed methods study to gain generalisable data on this population around self-harm as well as adding a richer understanding of the quantitative data collected through the use of qualitative interviews. This is important knowledge as it could mean the true prevalence of self-harm and suicidal behaviours in the ASC population is far greater than that reported thus far, if it was to include individuals who may be on the spectrum but are not aware of it. Identification of and interventions for people who self-harm may need to adapt to be more inclusive of this 'lost population' of people with high traits of ASC.

1.14 Research aims

This research was carried out using a mixed methods approach. The chosen framework was always the vision for this research, based on the researcher's worldview and the ideas that formed the research questions. When the research proposal was developed, the thought had initially been to interview clinicians (clinical and counselling psychologists) for the qualitative part, understanding their perspective with the view that this could inform clinical practice. However, in line with the desire to give those with lived experience a voice, the proposal was altered so interviews would be carried out with participants with lived experience, with the aim of informing both this population and the helping professionals as well as the wider community.

The overarching research aims is two-fold: 1) to estimate the numbers in the self-harming population who may have traits of ASC, and 2) to better understand their experiences.

The following research questions were based on the evidence discussed in this chapter. In order to address present research questions, an explanatory mixed methods design was employed to support addressing the study's aims.

1.15 Research Questions

1.15.1 Quantitative Strand

The first aim of this study was to investigate if there is an increased prevalence of autistic traits in people who self-harm. The hypothesis stated there would be an increased number of people with traits of ASC in the self-harming group, compared to the general population. This was based on the studies by Richards and colleagues (2019) and Cassidy and colleagues (2018b), as discussed in the previous chapter. The study then set out to examine the links between self-harm and autistic traits as well as exploring the experiences of this group and gain a better understanding of any links. This could be crucial knowledge to clinicians engaging with people at risk of suicide and to enable people self-harming a chance of better understanding their difficulties and how to best overcome these to help them achieve a better quality of life.

Hypothesis 1: There will be a significant difference in participants' self-reported traits of ASC (as measured on the AQ10) in the self-harming group, compared to the general population.

The research questions were finalised as follows:

1. Are people who self-harm more likely to have traits of ASC compared to the general population?

1.15.2 Qualitative Strand

Hypothesis 2: Individuals who self-harm and have traits of ASC above clinical cut-off, are likely to have faced specific emotional and social struggles throughout their life. This may be associated with their traits of ASC.

2. How does this identified group make sense of their experiences?

Integration of quantitative and qualitative strands

3. How does the integration and analysis of the information gathered from question 1 and 2 inform theory and clinical practice?

Chapter 2: Methodology

2.1 Overview

This chapter will start with a purpose statement summarising the rationale of the study followed by a detailed description of the design and methodology utilised in this research. Finally, the philosophical underpinnings and worldview of the researcher, and how these correspond with the chosen methodology will be detailed, alongside the theories supporting the suggested framework.

2.2 Purpose statement

The previous chapter presented statistics on the rates of self-harm, how this has been growing in the past decade and the increased risk of death by suicide associated with individuals who self-harm (McManus et al., 2019). A critical evaluation of the literature suggested that the ASC population are at higher risk of both self-harming and dying by suicide (Cassidy et al.; 2014; Hirvikoski et al.; 2016 Licence et al., 2019). Moreover, the evidence base suggested that many individuals, particularly females, are either misdiagnosed or undiagnosed with ASC, often long into adulthood (Mandy et al., 2022). This led to further exploration, specifically interested in individuals who do not have a diagnosis of ASC but do have traits of ASC and whether they have an increased occurrence of self-harm compared to the general population. Indeed, recent studies indicated that this population with traits of ASC have a higher risk of suicide (Cassidy et al., 2018a, 2018b; Richards et al., 2019). This is of great concern as this population may have no understanding of their traits of ASC nor the increased risks that can result from this, leaving both them and the helping professionals unaware of how to best support them to improve quality of life, reduce/eliminate recurring self-harm and ultimately, death by suicide. This study aims to measure the prevalence of individuals with traits of ASC (but no diagnosis) within the self-harming population and to test if the self-harming population overall have a higher mean AQ10 score compared to the general population. Finally, the study aims to capture the participants' stories to add richness and nuance to the quantitative data and to gain a deeper, more meaningful understanding of their experiences.

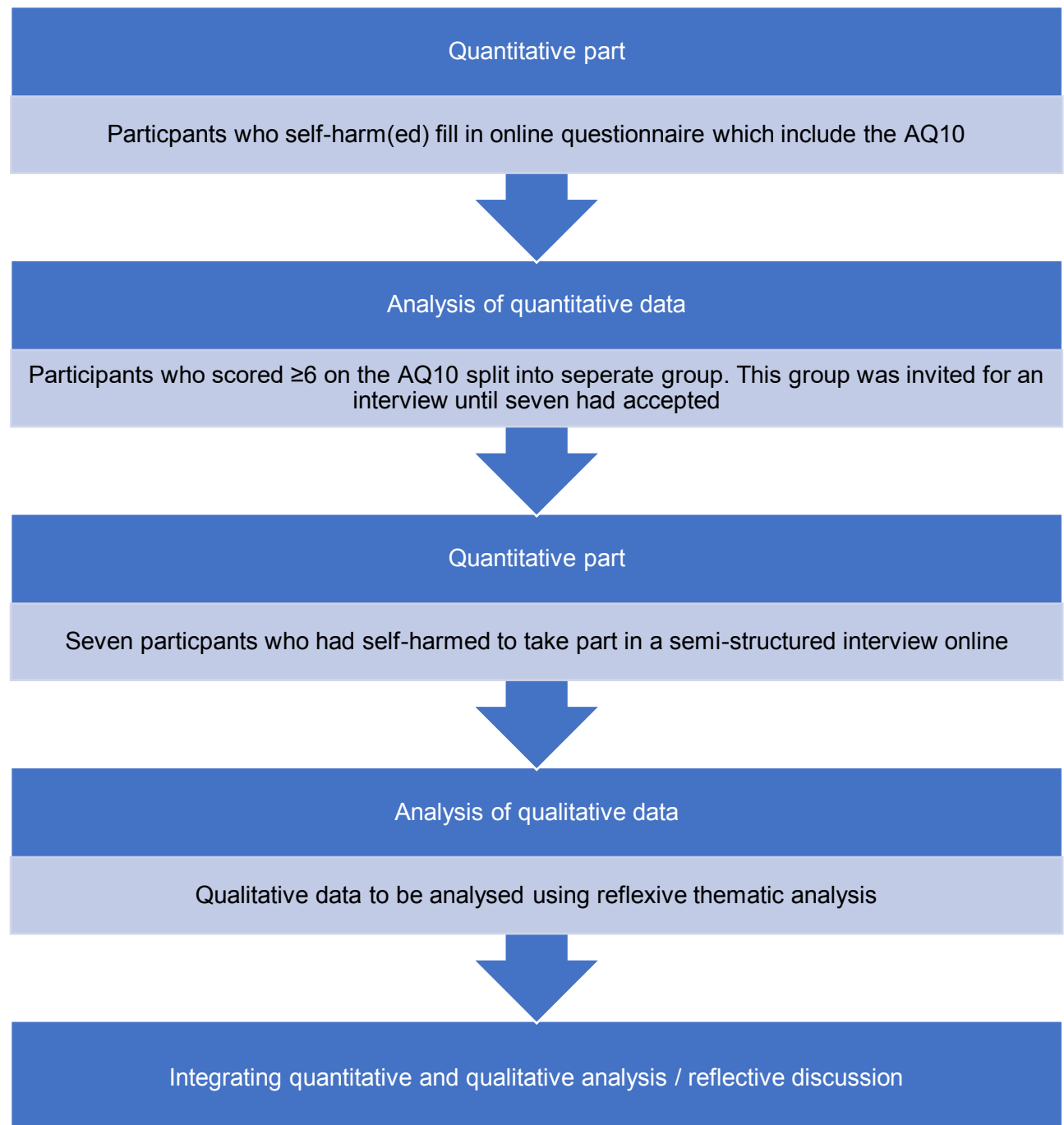
2.3 Methodological overview

A methodological overview is shown in figure 2.1. The figure demonstrates that analysis began after the quantitative data was collected. Due to using reflexive TA, analysis for the qualitative part of the study was an ongoing, reflexive process, as recommended by Braun and Clarke (2022). The section below outlines the researcher's ontological and

epistemological positioning and how that fits in with, and justifies, the use of the chosen methodology.

Figure 2.1

Methodological overview



2.4 Worldview of the researcher

A worldview can be described as philosophical assumptions and beliefs which researchers bring with them when conducting research and in the case of psychological practitioner scientists, this is also brought to clinical practice. Consequently, it shapes and influences how studies are designed and how data is collected and interpreted (Creswell and Clark, 2018). Another word commonly used for worldview is paradigm. For this study, the researcher has favoured the term 'worldview'. The researcher's worldview, ontological and epistemological beliefs have shifted over the past three years of the doctoral training. Gaining new experiences, working on placements, meeting a diverse range of people with their own, different worldviews and experiences, all shaped her current beliefs. Although the researcher reached an underlying philosophical foundation on which this study was based, this too is not fixed, and has been accepted and acknowledged. Somewhat shifting beliefs (partly based on our conscious and unconscious prejudices and biases) are acceptable as long as there is an awareness around this, what influences it and how we in turn influence the world around us, including the research that we conduct.

Accordingly, since writing up the research proposal for this study, the paradigm upon which it was based, has changed too. The final beliefs reflect and support these shifts. As for shifts, perhaps it is more useful to phrase it as 'ways of thinking' which has shaped the researcher's clinical practice as well as research.

The researcher has taken a pragmatist worldview. This is a pluralistic world view which already acknowledges the 'shifts' in beliefs by arguing that there is more than one truth. This has been a core foundation for the researcher, which has guided this research and driven the chosen methodologies. Pragmatism is also typically the worldview connected with mixed methods research (Tashakkori and Teddlie, 2003), which was always the vision for this research project. The ontological stance taken is based on critical realism, initially brought to light by the English philosopher Bhaskar (1975, 1979). Critical realism is a complex ontology, for many reasons. Critics have argued that it is an ontological stance *and* an epistemological underpinning, resulting in a 'collapse' of the more traditional hierarchical relationship, where ontology precedes epistemology. However, Maxwell (2010) argued against this by describing critical realism as combining ontological realism (there is an independent reality) with epistemological relativism (all knowledge is partial, incomplete, and shaped by people's individual, subjective beliefs, i.e., we cannot reject any of these views and beliefs of the world). It is this latter description and understanding on critical realism with which the researcher identified with.

Considering these beliefs, the researcher felt that only mixed methods could justify attempting to explain the aim of the research and answer the subsequent research questions. The philosophical underpinnings may appear to be somewhat contradicting although this is exactly the nature of pluralism which is an important pillar of this research and precisely the reason why it was highly desired to incorporate participants' experiences in their own words, into any quantitative data collected.

2.5 Theoretical account of methodology

Mixed methods research is a process which is driven by the research questions (Clark et al., 2016). It involves at least one quantitative method and one qualitative method and neither method necessitates an association with a particular worldview (Greene et al., 1989). Since Greene and colleagues' definition, mixed methods have evolved and is frequently viewed as its own methodological orientation, with its own worldview and techniques (Tashakkori and Teddlie, 2003).

There are clear benefits of taking a more pragmatic approach to research, combining qualitative and quantitative measures but there are also apparent tensions between the ontological and epistemological positions taken in the two parts of this study (Creswell & Clark, 2018). Some argue that mixed methods research should be viewed as a new paradigm, having its own, stand-alone worldview. Ghiara (2020) explains this by investigating Kuhnian terms and how Kuhn's philosophy (1970) was based on a relaxation around the various paradigms, recognising that epistemological, ontological, and axiological assumptions can change within each research community or indeed hold several views which may appear contradicting. Others believe that mixed methods research not only mixes methods within a single study but at times engage in complex mixture of different ontological and epistemological assumptions (Ghiara, 2020). This research does exactly that and although the researcher was interested in viewing mixed methods research as a new worldview, for the purpose of this study she has based her philosophical framework on a more traditional perspective of the methods.

The methodology was chosen and designed to align with the ontological and epistemological positions taken as described in the section above. The ontological critical realism approach links up with Part 1 of the study which makes use of quantitative measures. The critical relativist epistemology assumes a closeness with participants which was aimed to be gained through personal, face to face, one to one interviews. This was not possible at the time due to Covid-19 restrictions. However, the content of the interviews was carefully evaluated, and

it has been acknowledged that although all participants in the qualitative part of the study may have produced similar outcomes in the quantitative part, their experiences could be completely different. This is a key part to achieve the aim of not just gaining additional, more in-depth data, but to interpret and explain the data produced in the quantitative part. The researcher felt this part would provide crucial knowledge and without it there might have been a risk of jumping to conclusions based purely on the quantitative data. Beyond this study, on larger scales, that could lead to policies and guidelines being drawn up based on numbers that does not match up with people's experiences.

2.6 Rationale for choosing mixed methods approach

Mixed method research has used varying worldviews in a number of different ways. The researcher has adopted Creswell and Clark's (2011) perspective of a worldview as a framework which reflects her assumptions about the world, methodology and epistemology.

It could be argued that the ideas around this methodology started years ago by listening to people who self-harm and people with ASC, separately and those who fitted both categories. Since the researcher's first year as an undergrad psychology student, she worked with children with ASC. She was trained in carrying out Applied Behavioural Analysis (ABA) for children on the more severe end of the autism spectrum. She was incredibly confused about this considerably reductionist intervention, yet many parents seemed satisfied with the approach as it was producing 'successful' results, i.e., the children were conforming to acceptable societal norms. That was when she initially started to critically question the value of 'significant results' in quantitative studies and how this linked with the actual experiences of the individuals at whom the research was aimed. Was the research even aimed at them or at society, to make others feel more comfortable? Her BSc project researched if non-verbal gestures in children with ASC were different from neurotypically developing children and if these held a meaning that they couldn't express verbally. Her final year dissertation critically evaluated the theory of 'theory of mind'. She worked with young adults with ASC as an assistant psychologist in a learning disability unit in the NHS where she was able to take a completely different approach which focussed more on the individual and their experiences. She had been forming ideas and theories within this topic for years and for that reason this research is in many ways biased, one of the key reasons for choosing reflexive TA for the qualitative part of the study. Reflexive TA acknowledges researcher bias and uses it as strength rather than an adverse consequence. This bias will be addressed in more detail under the reflexivity section.

Qualitative studies can provide a greater and more rich understanding of the problem(s) and/or the research topic (Willig, 2008). This data, however, is often based on a small sample of participants and therefore makes it hard to be generalised. It should nonetheless be mentioned that more recent research argues that there is a distinct difference between external generalisability (being able to generalise to groups beyond the study sample) and internal generalisability (being able to generalise to just the sample studied) and that external generalisability is met by qualitative research and not quantitative, which is more likely to produce internal generalisability (Maxwell, 2020). Quantitative studies, with scope for large sample sizes, can provide us the ability to generalise findings which is often necessary for gaining funding and seeing a change in the field on a larger scale, e.g., within organisations such as the National Health Service (NHS). Yet critics have argued that quantitative research lacks the ability to capture the depth and richness of human experiences, instead reducing this to objective data in form of numbers (Willig, 2013).

For this study, it was felt that neither option would satisfy the aims, namely, to confirm that people with traits of ASC are more likely to self-harm and gain a deeper, more textured, and multi-layered understanding of their experiences, and to better evaluate their support needs. The researcher felt a need to further explain the initial quantitative results and so she has argued that using a mixed methods approach would allow for a richer understanding and would be the best design for the purpose of the aims stated. In addition, interviewing participants from the first part of the study would allow for their voices to be heard and not only remain numbers on a large SPSS file as well as explaining any significant findings from Part 1 of the study.

Researchers are at risk of getting entangled in the debate of whether qualitative methods are better than quantitative methods and vice versa (Duffy, 1985; Reichardt & Rallis, 1994). The researcher felt that taking a mixed methods approach to research would be more aligned with 'real life'. This is not to say that quantitative or qualitative methods on their own are inadequate, simply that sometimes, mixed methods might provide a more varied, in depth understanding. For example, medical doctors will examine a patient's lab results as well as considering the patient's medical history and other relevant information (Creswell & Clark, 2018). We would take that for granted. A teacher would look at the poor grades of a student who usually performs much better and understand that it is possibly due to the current, difficult situation this student is in. Greene (2007) referred to this as "multiple ways of seeing and hearing". We see numbers and data, behaviours, and presentations. However, that is not seen the same way by everyone (or seen at all by some) and does not explain on

a deeper level *why* this is occurring (or not occurring) and how/what the individual experiences are around it and within it.

Quantitative measures allow for large samples and can therefore be generalised more effortlessly than qualitative measures (Creswell & Clark, 2018). We also find that top level decision makers who inform guidelines (e.g., NICE) and consequently where funds tend to be allocated, are mostly basing their decisions on research that is generalisable (Mollon, 2009). Additionally, Vanheule (2017) pointed out that 69% of the DSM-5 committee panel members, responsible for the 347 disorder categories of mental health disorders, also had a financial interest with pharmacological industries. This research does not intend to start a debate on those issues however, it is important to be aware of these facts so that we question ways of doing research, validity, 'gold standard' guidelines and how we label people within all those structures. It may be, that what we know as 'best' ways of producing guidelines and recommendations are not necessarily best but that there are many truths, and these differ between us, despite what the numbers say, for example as produced in large quantitative studies. Much have been put in place to prevent financial and intellectual conflicts in influencing recommendations, yet it cannot be said to have been eliminated (Mollon, 2009).

Despite being a core methodology in psychology, qualitative research has historically been seen as less legitimate than other forms of research in the field (BPS, 2018). Enthusiastic to add to the evidence base and possibly even reach the decision makers who inform guidelines and recommendations, a mixed methods design was perhaps always the desire for this research. The researcher also wanted to remain true to her beliefs that quantitative measures are more than just that.

2.7 Research Design

To address the research questions outlined in Chapter 1, a mixed methods approach was utilised, which involved collecting both quantitative and qualitative data and then integrating the results, within one study (Hanson et al., 2005). The integration stage will be discussed both in Chapters 3 and 4 as it involved an analytical discussion more so than analysis of the data as carried out for the first two parts of the study.

The study made use of an explanatory sequential mixed methods design with two parts (Creswell et al., 2003; Tashakkori & Teddlie, 1998). A sequential explanatory design implies that an exploration of the findings of the first part of the study would refine the understanding

of the results of second, and how the two parts relate. In this study, the quantitative part came first and the qualitative part which followed attempted to explain the results found in the first part of the study. Figure 2.2 demonstrates the core of this design.

Figure 2.2

The Explanatory Sequential Design

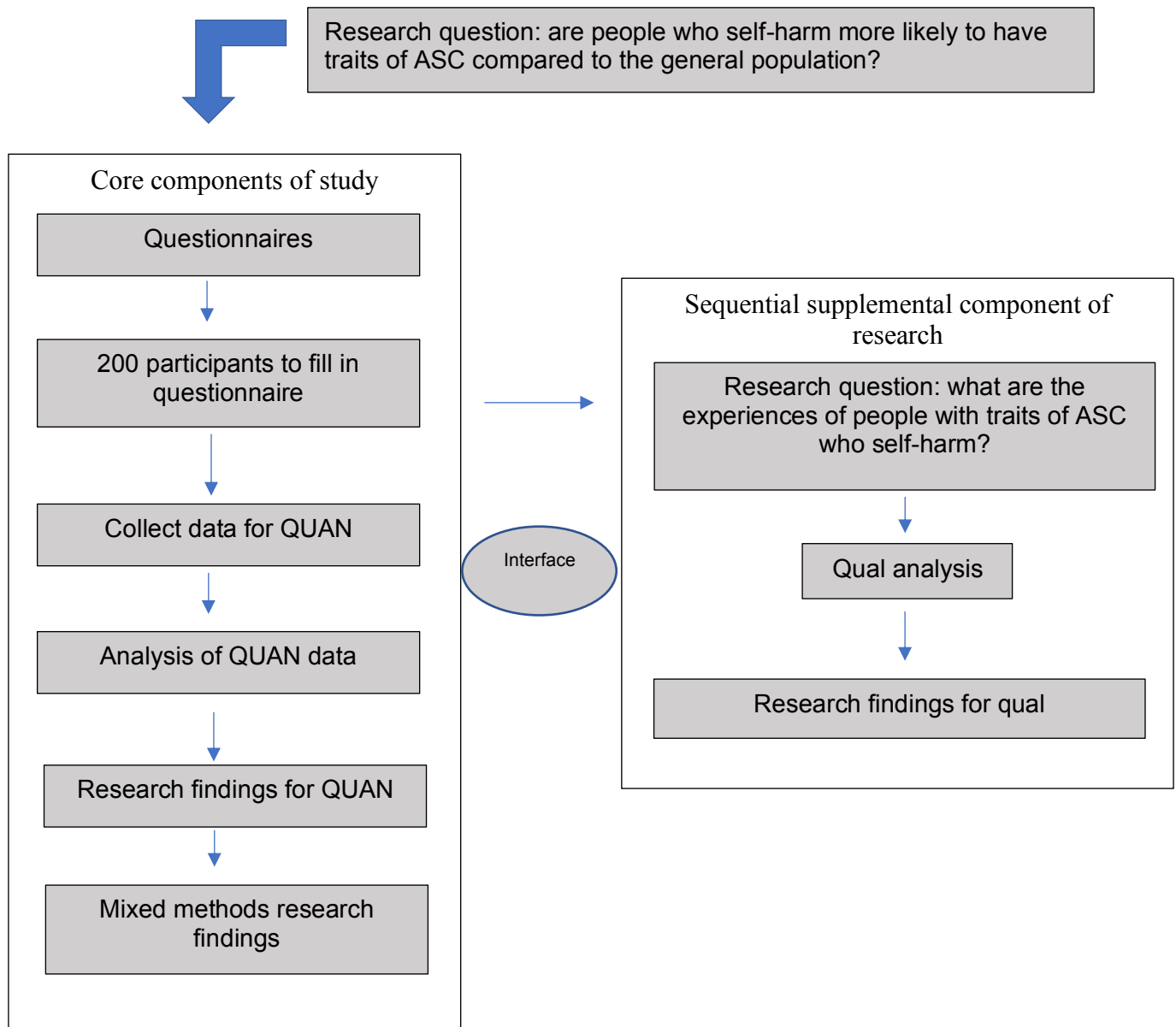
Source: Adapted from Creswell & Clark (2011)



A more detailed diagram of the steps within the research design can be seen in figure 2.3 which demonstrates that the qualitative part is linked with and explains the quantitative findings. The hypotheses are outlined in detail in the following section.

Figure 2.3

QUAN → qual mixed methods design. Adapted from Morse and Niehaus (2009)



2.8 Hypotheses

The quantitative part of the study hypothesised that participants who self-harm (or had self-harmed) would be more likely to show traits of ASC than the general population. This was measured by administering the AQ10 (Allison et al., 2012), (Appendix J) to this group and comparing the scores to that of the general population (Lundin et al., 2019). The comparison population was chosen as it had a very large sample size from Sweden. It would have been ideal to use a study with a UK population sample however those available had used the

AQ50 and so the mean scores could not be compared. Being another European country, it was decided that for the purpose of this study it was a reasonable comparison group.

The qualitative part of the study was interested in the experiences of participants who scored highest on the AQ10 from the sample and then examine if this might aid the internal and external generalisability for this group. It was hypothesised that the individuals with traits of ASC would have felt different from their peers as children as well as in adulthood and that self-harming was a coping tool. It was initially proposed that approximately 10 participants would be interviewed (interview schedule can be found in Appendix H), investigating their experiences around what led them to self-harm, any previous experiences they have had relating to self-harm, what they thought about filling in the screening test for autism and if they had felt different to their peers as children and in adulthood. Questions around support and how they had perceived this as well as how support could be improved was also explored.

2.9 Part 1 – Quantitative Methodology

2.9.1 Sampling

The target population was adults who had previously self-harmed and/or were still self-harming. Substantial consideration had been given around excluding people still self-harming to reduce risk. However, given the recruitment platforms, potentially a large percentage of those on the given support groups might still have been engaging in self-harm. This was because the groups on Facebook that were primarily used to advertise, were support groups for self-harm. Furthermore, it was felt that the voice of perhaps especially that group should be heard as they were the ones who have not been able/wanted to stop self-harming. An escalation process had been put in place to deal with any potential increased risk and this will be explained further in the section describing ethical considerations.

2.9.1.1 Sample size

The study aimed to recruit 200 participants for this phase. An initial power calculation was carried out to calculate the estimated number of participants needed, whilst aiming for a minimum power of 80%. Based on the current literature, an effect size of 0.5 (medium) was assumed, which according to Cohen's tables suggested $N=64$ if $p=0.05$ (Cohen, 1988). To account for dropouts, participants not completing the full questionnaire and other confounding factors we concluded $N=200$. The researcher had initially suggested $N=100$

however the research ethics committee advised to increase the sample size due to working with a medium risk group and the necessary steps taken to mitigate any risk.

Recruitment was primarily done via social media platforms such as Twitter, Facebook, Instagram, and LinkedIn. On Facebook this was done via specific self-harm support groups. Permission was requested from the group administrators before the advert was posted (Appendix I). There was a trigger warning noting that talking part involved sharing information about one's self-harm which could be distressing and act as a trigger. The study was also advertised through Sona at City, University of London.

The benefit of predominantly using social media was that it was far more likely to cover a very wide geographical area. Additionally, this proved to be an effective and time efficient way to collect the quantitative data whilst participants could remain anonymous. Moreover, the research was conducted during the Covid-19 pandemic and therefore the chance of anyone seeing a leaflet e.g., in a GP surgery was significantly reduced as most services were either completely closed or offering extremely limited access.

2.9.1.2 Sample inclusion and exclusion criteria

Inclusion criteria:

- >18 years of age.
- Have self-harmed, i.e., an intentional act of self-poisoning or self-injury irrespective of the motivation or apparent purpose of the act (NICE, 2004).

Participants were not included if they met the following exclusion criteria:

- No capacity to provide written informed consent.
- Ministry of Justice patients subject to a restriction order.
- Needed help for self-harm at the time of accessing the online questionnaire.

Although self-harm has been defined here by referring to NICE's definition, participants were not given specific criteria around a self-harm definition. This was based on their own experience of self-harm although the questionnaire did include questions around how they were or had been self-harming. Moreover, the updated definition from NICE (2022) had not been published at the time this research design was set up and the questionnaire developed, hence the earlier reference to NICE.

Individuals with a diagnosis of ASC were not excluded from taking part as their AQ10 scores on the questionnaire would function to further validate the scale and their responses were explored for any potential correlations between those who scored above cut off on the AQ10 but did not have a formal diagnosis.

The exclusion criteria were decided upon as it could impact their responses on the questionnaire which may have been due to their current situation rather than a stable state over time. In addition, it was felt that it was unethical and not safe to include individuals fitting any of the exclusion criteria. To avoid poor ethical standards by excluding participants who wanted to take part, the exclusion criteria were discussed with the service user group as well as a large research team carrying out NIHR funded research into self-harm and attempted suicide, led by Professor Rose McCabe at City, University of London. Both sources agreed with the proposed exclusion criteria for best ethical practice.

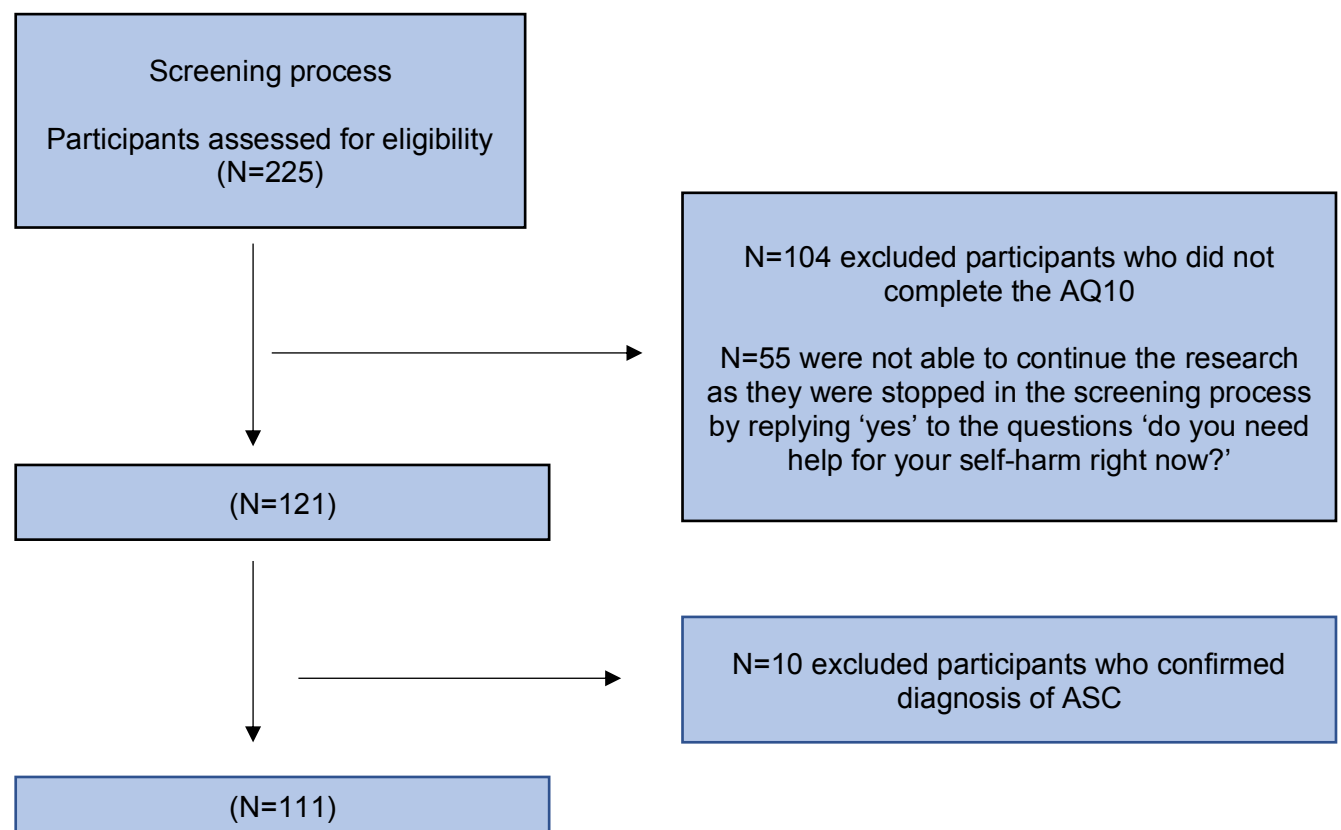
2.9.2 Screening and Data Collection

Individuals who saw the advert and clicked on the link, were taken through to a questionnaire via Qualtrics. Data was stored here securely and anonymously. Participants were shown the participant information sheet (Appendix B) and if they agreed to take part, they would click next and sign an informed consent form (Appendix C). At the next stage all participants were then requested to fill in a short questionnaire which screened for inclusion/exclusion criteria and noted demographics (Appendix K). This also included a 'red flag' screening question asking if the participant needed help now for their self-harm. Should a participant respond 'yes' to this, it would be flagged on Qualtrics. Answering yes to that question meant the questionnaire was stopped for the participant and an escalation procedure initiated. The page on the screen thanked them for their participation and they were also sent an automated email immediately, explaining the questionnaire had ended for them as they replied yes to the question of needing help now, and to keep them safe (or not exacerbate an already serious situation) they could not continue with the study. The email also suggested how the individual could get help for their self-harm at given time. This step stopped many participants who wanted to take part, to finish the questionnaire, and have their responses included in the analysis. It was a necessary step, also requested by the ethics committee, to not cause harm. The ethical implications of excluding a large number of individuals who wanted to take part and to whom completing the full questionnaire may not have caused them harm, will be discussed further in the section on ethical considerations.

A total of 225 individuals responded to the advert started the questionnaire (see Figure 2.4). Of those, 121 (54%) completed the entire questionnaire. Ten were excluded from the analysis as they already had a confirmed diagnosis of ASC, leaving a sample of N=111 with which to carry out analysis. From the 104 who did not complete the questionnaire, the majority (N = 55) were not able to continue the research as they were stopped in the screening process by replying 'yes' to the question 'do you need help for your self-harm right now'? As this was medium-risk research, working with a high-risk population, it was deemed necessary both by the researcher and the ethics committee to have some robust buffers in place to identify potential harm either caused by or made worse by the research. Those excluded due to this screening question made up 24% of the original 225 who consented to take part, and this did not go unnoticed as it was clear they wanted to participate. A further 10 participants were excluded as they already had a formal diagnosis of ASC although 2 of them also answered 'yes' to 'needing help for self-harm now' which meant they would have been excluded in any case. This will be discussed in more detail in Chapter 4.

Figure 2.4

Participant flow through screening and enrolment into the study



Following the screening stage and questions on demographics, participants were asked to fill in the AQ10 and the Inventory of Statements About Self-injury (ISAS) sections 1 and 2. The questionnaire was continuous and did not state that participants were answering questions from the AQ10 nor the ISAS. The participant information sheet did however elucidate that the AQ10 was in the questionnaire, and they would be filling this in although it was not shown to participants as a separate questionnaire. Both the AQ10 and the ISAS are measures readily available online and free to use. The answers were self-reported using Qualtrics which is a City, University of London approved platform.

2.9.3 Study Measures

A questionnaire was developed using Qualtrics and participants accessed the questionnaire via a weblink. The questionnaire included the following scales: AQ10 and ISAS sections 1 and 2. Both scales can be found in the appendices (respectively Appendix J and L). The questionnaire also included questions around participant demographics and mental health diagnoses. SPSS 28.0 and Nvivo 12 were the software used for the analyses.

The AQ10 is a 10 item self-report questionnaire which has been validated in earlier studies (Allison et al., 2012; Booth et al., 2013) and can indicate traits of ASC. The AQ10 is also the recommended tool for screening for autism by NICE (2012). Allison and colleagues (2012) tested for internal reliability on the AQ10 with a clinical cut-off point of 6 and reported a Cronbach's alpha of 0.85. They also found that the AQ10 significantly correlated with the AQ50 ($r = 0.92, p < .0001$). The preference to utilise the AQ10 over the AQ50 was based on it being notably shorter and a higher response rate/completion of questionnaire was expected with the shorter version. This also reflected clinical reality where the AQ10 is more likely to be utilised as an initial screening tool or incorporated into any clinical practice other than when there is a suspicion of ASC or direct request to assess for ASC.

There has been some recent criticism of the AQ10 in terms of its internal reliability and its unifactorial structure (Bertrams, 2021). Some argue using The Social Responsiveness scale as an indicator for traits of autism is more advantageous (Constantino et al., 2003). Most would agree that ASC has potential for a range of specific traits and that many individuals only display some of the traits, therefore a tool that can capture difference within all the categories would be best and each category should perhaps be scored/evaluated independently. There is a broad agreement that categories which may inform about traits of autism include difficulties with all or some of the following areas, as defined by the DSM-5:

sensory sensitivities (e.g. to smell, texture and touch), difficulty adapting to changes in routine, not understanding social rules, unable to discuss their own feelings or other people's, difficulty with acts of affection, preference to be alone and avoid eye contact, preferring to plan things in advance (American Psychiatric Association, 2013). The AQ10 certainly sets out with an aim to capture those although with only 10 questions this may be challenging, and Bertrams (2021) further argued that several questions in the AQ10 in fact do not capture the intended difficulties, particularly items around the category of 'imagination'.

Careful consideration was given to using other scales, particularly the AQ50 for the study however, in line with the guidance from NICE (2012), the AQ10 was chosen. The AQ50 is a very long scale not only for participants to fill in, but even more unlikely to be used as a routine screening tool by busy clinicians and the ever-increasing demands on the NHS. Moreover, using mixed methods already increased the workload significantly for this doctoral thesis and therefore also the time needed to be spent on this. There was a great concern about participants not completing the AQ50, therefore needing to extend the recruitment period significantly.

The reduction of items from AQ50 to AQ10 makes the scale far more likely to be utilised more routinely and therefore the researcher felt comfortable proceeding with the use of the AQ10. Finally, the purpose of the AQ10 measures for this study was not diagnostic but to gauge if individuals who self-harm were more likely to have traits of ASC, measured by the mean score as well as reporting the prevalence of individuals with scores above clinical cut-off. For this purpose, the AQ10 was adequate if not a best choice, given the length of the AQ50 could have had serious consequences for a study of this size and that there are no better alternative scales available.

All analyses were carried out using SPSS 28.0, beginning with a preliminary analysis. The data set was scanned for missing data and outliers. Frequencies and demographics were explored in forms of tables, charts, and graphs. AQ10 scores were checked for normal distribution to ensure the data met analytical assumptions. It could then be decided if statistical testing should be parametric or nonparametric. Total AQ10 score was calculated for each participant and divided into an above or below cut-off point. The total mean AQ10 score for the sample as a whole, was calculated and compared to that of the general population (Lundin et al., 2019) by carrying out a one-sample t-test. Field's (2018) recommendation for using a one-sample t-test when the full dataset for the comparison group is not available, was taken into consideration when this analytical strategy was chosen.

2.10 Part 2 – Qualitative Methodology

2.10.1 Rationale for Reflexive Thematic Analysis

For the qualitative strand, reflexive thematic analysis (TA) was chosen by the researcher. TA is a widely used research methodology, particularly within mixed methods research (e.g., Creswell and Clark, 2011, 2018; Howitt and Cramer, 2008; Stainton Rogers 2011). TA offers a systematic approach for identifying, analysing, and reporting patterns in a dataset. TA is flexible in its approach in that it can be used to answer almost any research questions within the social sciences and fits under many varying worldviews, hence making it a widely used approach (Braun, 2013). Themes can be found in a bottom-up, data-driven manner based on what is found in the data, or they can be found in a more top-down manner where the researcher uses the data to investigate specific theoretical ideas or applies those to the analysis being carried out. There are various approaches to TA. The varying approaches within TA are offered as inductive vs deductive, semantic vs latent, experiential vs critical and realist, essentialist vs relativist, constructionist (King et al., 2019). As the researcher identifies as pluralistic both within research and as a practitioner, the idea of a framework being “either or” did not offer the flexibility sought for. Therefore, reflexive TA was purposely chosen over other, perhaps more deductive options of TA. Rather than taking an inductive or deductive orientation to the data, reflexive TA allows for both and anything in between as it views the variations of TA as a flexible line. The same applies for the other mentioned variations, as can be seen in table 2.1 below. In general, reflexive TA offers robust, step by step guidelines rather than rigid rules.

Table 2.1*Variations of reflexive TA (adapted by Braun & Clarke, 2022)*

Orientation to data	<u>Inductive</u> : analysis, coding and theme development are driven and located within the data set.	↔	<u>Deductive</u> : analysis is shaped by existing theoretical constructs which guides the way themes are developed.
Focus of meaning	<u>Semantic</u> : analysis more focussed on explicit, surface level meanings.	↔	<u>Latent</u> : analysis explores meaning on a more implicit, underlying level.
Qualitative framework	<u>Experiential</u> : analysis aims to explore the individual's understanding and experiences.	↔	<u>Critical</u> : analysis is focussed on exploring and unpacking meaning around the topic/issue.
Theoretical frameworks	<u>Realist, essentialist</u> : analysis aims to capture truth and reality as expressed within the dataset.	↔	<u>Relativist, constructionist</u> : analysis aims to explore and unpack the realities and truths which are expressed within the dataset.

As suggested in its label, reflexive TA is grounded and shaped in the researcher's reflexivity and subjectivity. Unlike other forms of TA, subjectivity is expected and seen as a necessary and positive part of the research, as long as it is consciously and continuously reflected upon (Braun & Clarke, 2022). Hence, this theoretically flexible method was chosen as it was found to align with the ontological and epistemological views of the researcher. The fluidity and flexibility in conducting reflexive TA and analysing data derived from this process, was a preferred option over other forms of TA as it fitted in with the pluralistic worldview of the researcher as well as the desire to add depth and nuance to the quantitative data collected in the first part. Consequently, reflexive TA was chosen over other qualitative methods, such

as interpretive phenomenological analysis (IPA; Smith and Osborn, 2015) and Grounded Theory (Bryant and Charmaz, 2019), both methods also aiming to capture participants experiences. These methods did not align with the research design in this study, where the quantitative data was given substantial weight and the qualitative part aimed at explaining the results found in the first part of the study. However, a comprehensive evaluation of other forms of TA or indeed the vast options of further qualitative frameworks was not carried out. Reflexive TA was the desired framework for this study from the outset. Braun and Clarke (2022) argue that it is unnecessary to reject other forms of qualitative methods as such. For one it means allocating more time to research and investigate many potential options. Furthermore, without having in-depth knowledge about all these other options, one cannot justify a *rejection* of such methods. Finally, such a survey approach runs the risk of implying that there is one best method for each research project.

A clear rationale for choosing reflexive TA has been described above. However, there are some limitations to the chosen qualitative approach too, especially as it is part of a mixed methods design. Braun and Clarke (2022) argue strongly for TA approaches and why TA is a valid, trustworthy, widely applicable and replicable form research method. Additionally, they provide excellent teaching on how to structure and carry out TA to overcome many of the critique of the method. Nonetheless, the researcher felt that this 'pure' way of conducting research has its limitations, particularly, with reference to justifying biases in the analyses and findings. Braun and Clarke (2022) encourage researchers carrying out reflexive TA to be "bold, creative, questioning, critical, and reflexive" (p. 282). The researcher of the current study believes this include being questioning and critical of the reflexive TA methodology. Therefore, certain aspects of the proposed reflexive TA were adapted, and other elements added, particularly to make it more appropriate to use in a mixed methods design.

One of those amendments were obvious in the design as data was collected in more than one way, also known as triangulation. Another deviation from the 'handbook' was to provide a detailed overview of the trustworthiness of the study which will follow in a section further below. Finally, the researcher believes that findings in Part 1 of the study adds significantly to the overall reliability and validity of this specific research.

2.10.2 Qualitative strand analyses

Seven participants who scored ≥ 6 on the AQ10 were interviewed through semi-structured interviews (Appendix M). Due to Covid-19, all the interviews took place online and the average interview time was 33.55 minutes. The interviews were recorded and transcribed. The data was then analysed through a six-phase framework of reflexive thematic analysis (Braun & Clarke, 2022) and these stages will also be outlined. Coding was carried out using Nvivo software and then by paper format, having each code cut out on pieces of paper whilst creating themes and subthemes. Only unidentified extracts are shared from the interviews to ensure anonymity of the participants. The results will be presented in the following chapter in form of themes and sub-themes with quotes illustrating these and ending with a summary of the qualitative results.

2.10.3 Recruitment

Participants who scored above clinical cut-off on the AQ10 were contacted and requested to take part in the qualitative part of the study according to rank of scores. Those who scored highest on the AQ10 were contacted first. There were many who did not respond to the invitation and eventually the researcher had gone through the entire list of the participants who had scored 6 or above on the AQ10 in order to recruit seven participants for the qualitative part.

2.10.3.1 Sampling

Seven participants who scored highest on the AQ10 were invited for a follow-up, semi-structured interview. Allowing for dropouts and taking into account that some would likely decline to take part in this phase of the study, the invitations were continued as necessary according to scores on the AQ10, as guided by the results from the first strand of the research. Most participants from the 'above cut-off on the AQ10' group did not respond to the invitation for the interview. Hence, the seven participants recruited were not only in the higher end of AQ10 scores but ranged between a total of 6-9 on the AQ10.

2.10.4 Data Collection

The researcher created a semi-structured interview agenda (Appendix M) which was used to structure the interviews. The interviews took place online via Zoom and lasted between 25-48 minutes each. A maximum of one hour was considered to avoid fatigue in both interviewer and interviewee and to minimise this as a confounding factor and potentially impact the quality of the data collected (Clark, 2008; Rowley, 2012). Interviews were video recorded as this was the most reliable way of recording on the aforementioned platform.

However, due to the constraints of working online and the fact that not everyone would have the ability to take part in an online video call, interviewing over a phone call was also accepted. One interview was carried out over the phone, and this was recorded on an encrypted recording device approved by City, University of London. The video recordings were also recorded using this device as a back-up.

Before the interview started the researcher checked that the participants had read the information sheet and asked if they had any further questions. Consent was given verbally in addition to the already signed consent form. Participants were reminded that they could stop the interview at any point, without giving any further reason, that they did not have to answer anything they did not feel comfortable sharing and they could take a break whenever needed.

Each participant who was interviewed was given a pseudo first name which was used to report the data extracts and for discussion. This was preferred to giving each transcript an ID number, as it felt more personal.

Participants of the qualitative strand were offered a £15 voucher to Amazon as a token for their time. All seven participants who were interviewed received this, via an email of their choice.

2.10.5 Analytic Process

Recordings were anonymised and transcribed. Familiarisation of the data set was done via hard copies. Coding began on these hard copies alongside notes derived from the familiarisation process. Coding was then continued and completed by using Nvivo 12.

The qualitative data was analysed using reflexive TA of the transcripts. The analytical process for the qualitative part of this study was guided by the 6 steps by Braun and Clarke (2022) as demonstrated in table 2.2: familiarisation; coding; generating initial themes; developing and reviewing themes; refining, defining, and naming themes; writing up. The final step was the write up which in this case was different as the write up included results from the quantitative strand of the study and the integration and meanings derived from that has been discussed in more detail in both Chapters 3 and 4. The analysis was embedded as the qualitative part was used to augment the quantitative part of the study (Palinkas et al., 2011).

Table 2.2

Six phases of reflexive thematic analysis (adapted from Braun & Clarke, 2022)

Phase 1	Familiarising yourself with the dataset	An intimate familiarisation with each data item and dataset as a whole. This involves listening at least once to the recordings and reading the transcripts several times. Brief notes about thoughts and analytic ideas should be noted down.
Phase 2	Coding	Working systematically through the data and applying labels/codes to segments that appear meaningful, interesting, or relevant. Coding can be done on a semantic or latent level, or anywhere in-between.
Phase 3	Generating initial themes	Shared meanings across the dataset are identified and clustered together to create candidate themes. This is an active process constructed by the researcher.
Phase 4	Developing and reviewing themes	Candidate themes are assessed for relevance and how they fit into the overall analysis.
Phase 5	Refining, defining, and naming themes	The analysis is tweaked to ensure that each theme is built on a core concept which can be identified across the dataset.
Phase 6	Writing up	Formal writing may start from phase 3. The aim is to merge the narrative analysis through detailed data extracts, to share a story which addressed the research questions.

2.10.5.1 Big Q framework and reflexivity

The paradigms and philosophical underpinnings of the study were discussed in detail in preceding sections of this chapter. The qualitative strand of the research is approached within a Big Q paradigm, meaning that it is not only about the data and techniques used to analyse this data, but equally (or most importantly) about *how* these qualitative techniques are applied (Braun & Clarke, 2013). Therefore, the importance of reflexivity is of essence in

any Big Q qualitative research, although arguably, the subjectivity advocated by reflexive TA makes it even more important and has been a continued part of this research, not just in the qualitative segment but throughout. The researcher has endeavoured to share this reflexive analytical journey, which eventually produced the themes that will be presented below.

Boyatzis (1998) defined a theme as a pattern which at the least identifies and organises observations and at best offers interpretations of some sort. It is important to note that themes do not just emerge but are actively produced by the researcher, particularly in reflexive TA (Braun & Clarke, 2022).

2.10.5.2 Orientation to the data

Purely inductive analysis of data is impossible as the researcher(s) in qualitative research always shape what is noticed and what is not noticed (Braun & Clarke, 2022). This is part of the meaning making process and the researcher would argue that this research has intended to take as inductive an orientation as possible, giving the participants a voice and space to tell their story. However, she was aware that her interests, biases, culture, language (English also not being her first language), social statuses etc all influenced how she interpreted the data. This would indicate that the orientation to the data coding has moved along a spectrum where an inductive orientation (data-driven) was at one end and a deductive orientation (researcher and/or theory driven) at the other end.

2.10.5.3 Focus of meaning

Meaning of the coding can be derived from different levels. Again, this is preferred to be viewed as a spectrum and rather than choosing one over the other, reflexive TA offers an opportunity to move along this spectrum. Figure 2.5 demonstrates this spectrum in meaning-making. Semantic codes capture explicitly expressed meaning; they frequently stick closely to participant language whilst latent codes look at the meaning on a deeper, more abstract level (Braun & Clarke, 2022). This does not imply that the data presented here was coded either semantically or latently but that some coding focussed more literally on the participants words and other codes were formed based on a more conceptual level.

Figure 2.5

Line of spectrum with semantic and latent codes



An example of a semantic code from one of the transcripts: *"The first time I self-harmed, as in actively hurting myself, on purpose, I was in hospital."* Sally. This was understood very literally.

An example of a latent code from one of the transcripts: *"The pandemic meant I could be alone, and this was great for me, it meant I self-harmed less."* Anna. This was understood to be a trait of ASC (solitude/isolation preferred), despite ASC not being mentioned.

2.10.6 Stages of reflexive thematic analysis

The analysis followed six phases which started with familiarisation of the dataset, followed by a more rigorous process of coding and then development of themes. Familiarisation was done on paper and the coding was done using Nvivo. Table 2.3 gives an outline of the 6 phases.

Table 2.3

Outline of 6 phase reflexive TA. (Adapted from Braun & Clarke, 2022)

Phase 1	Familiarisation with the dataset
Phase 2	Initial coding
Phase 3	Generating initial themes.
Phase 4	Developing and reviewing themes
Phase 5	Refining, defining and naming themes
Phase 6	Writing up

2.10.6.1 Coding – phase 2

Initial coding formed the foundation for reflexive TA and the labels created summarised the data meanings. This was an evolving process, and codes and labels were changed several times as the analysis was progressing. Reflexive TA is a subjective process as it involves interpretation and meaning-making and it is therefore typical and good practice to have a single coder as was the case in this research (Braun & Clarke, 2022). Table 2.4 shows all the codes that were created, 103 in total. Braun and Clarke (2022) advise against counting the frequency for each code repeated within the whole dataset as this is not consistent with the Big Q framework.

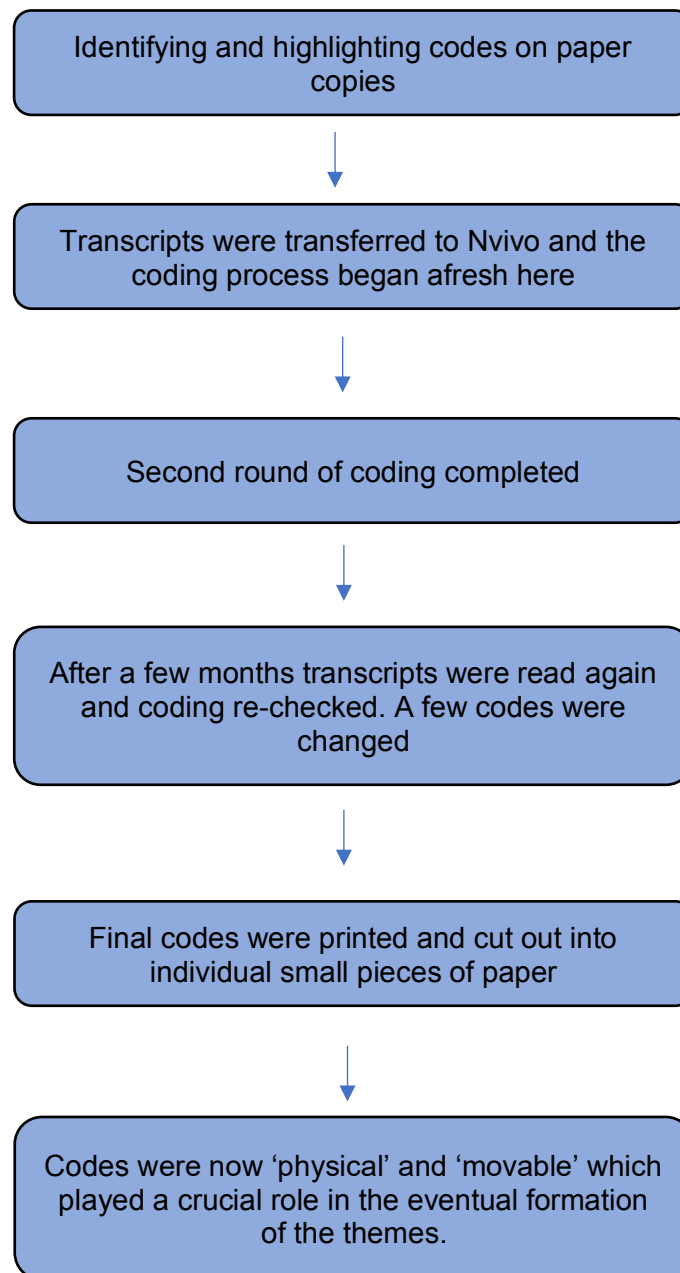
Table 2.4
Codes produced

1 st time teen	Anger	Autistic	ASC diagnosis helpful
ASC in family	ASC not picked up	Ashamed of DSH	Breakdown
Bullied	Can't get ASC ax	Change difficult	Close friends
Co-morbidity	Communication	Concentration	Control
Couldn't be myself	Crying	Cutting prevented suicide	Depressed
Different as adult	Different as child	Difficulty conversing	Difficulty making friends
Difficulty socialising	Disregarded by professionals	Distraction	DSH as release
DSH as security	DSH bad	DSH childhood	DSH comforting
DSH exciting	DSH grounding	DSH group support	DSH in 20's
DSH judged by professionals	DSH prevented suicide	DSH to cope	DSH to feel
DSH when overwhelmed	ED	Eye contact	First time
Fitting in	Frustration	Girls masking ASC	Group for DSH
Help for DSH	Impulse	Insensitive	Intermittent DSH
Internet	Intervention for DSH	Isolated	Liked
Listen to me	Listened to	Manipulative	Need to be alone
No emotions - neutral	No end in sight	Not coping	Not good enough
Not supported	Numbness	OCD	Off sick
Pandemic decreased DSH	Pandemic positive	Past experiences	Playing
Prefer adults	Prefer solo activities	Psychotherapy group	Reactive
Relationships tricky	Relieves numbness	Remove self	Routine
Rule driven	Run away/escape	Safety net	Scratching DSH
Sectioned	Self-conscious	Self-harmed more	Shame
Signs of ASC	Stigma	Stress	Suicidal
Support	Supported by professionals	Supportive friends	Taking things literally
Tool for relief	Trauma	Trigger	Trigger 1 st time
Trust	Twin sister	Weird kid	

Coding was a laborious process which happened over several months. Figure 2.6 outlines this process in greater detail. Initially coding was carried out on paper version after the 'familiarisation' stage was complete. It is important to note that the codes that were produced here were not copied into Nvivo, rather the researcher started coding again and was then able to cross check with the initial 'rough' coding carried out on paper. This process also added to the trustworthiness of the final themes. Once coding felt complete, they were printed onto paper and cut out into individual small pieces. This enabled the researcher to get a visual overview of each code whilst able to physically move them around, starting to form them into groups, i.e., themes. Codes were generally connected to many segments of the data, beginning to conceptualise an overall meaning. An extract from one of the transcripts shows an example of the coding which can be found in Appendix O.

Fig. 2.6

Coding process



Moving on from coding can be difficult, particularly when drawn into the data. When has the researcher done enough? When can the researcher move on and still ensure that participants voices have been fully heard so their stories can be shared? Braun and Clarke (2022) suggest it is time to move on when the researcher finds herself tweaking/over-tweaking the codes and coding labels and that guidance was followed with this study too. The transcripts were initially coded in December 2021 and January 2022 and then again in June and July 2022. Interestingly, only a few more codes were added, and the researcher

felt satisfied with the final codes, despite acknowledging that changes may have occurred again had it been looked at later.

2.10.6.2 Generating Initial Themes – phase 3

Codes generated on Nvivo were printed and cut out. Codes with similarities were grouped together and themes began to emerge. This included codes that had occurred multiple times although some only occurred once but were part of multiple other, different yet similar codes, to create a theme. Not all codes were grouped into a theme. Phases 3-5 did to some extent merge into one which Braun and Clarke (2022) accepts as carrying out reflexive TA comes with guidelines rather than strict rules, due to the subjective nature of this too. This was a lengthy process. Exploration of the codes led to four initial themes, some with subthemes, as can be seen in table 2.5. It should be noted that the themes presented in table 2.5 were not the final themes/sub-themes and this process was expected to continue to evolve as the analysis proceeded.

Table 2.5

Initial themes and subthemes – phase 3

Theme	Characteristics
Relief Sub-themes: Emotional symptoms External symptoms	DSH used to relieve external differences such as difficulties with concentration and impulses. DSH used as a tool to relieve emotions such as crying, low moods, anger and numbness.
Different	Feeling different both as a child and currently as an adult. Here many examples were given that could indicate traits of autism.
Support	Support has been very mixed, some supportive and some very judgemental and non-supportive.

2.10.6.3 Theme Development – phase 4

This phase can be viewed as a quality check of phase 3 as well as offering an opportunity to develop the richness of each theme. Typically, in reflexive TA, initial themes produced in phase 3, will need considerable revision which was also reflected in this instance too.

2.10.6.4 Refining, defining, and naming themes – phase 5

This phase of the TA could have been merged under phase 6, however, a few important changes occurred to the naming of the themes and as such it felt important to highlight these changes. Braun and Clarke (2022) stressed that when carrying out reflexive TA, themes can change even as the researcher is writing up. Hence, the final themes were not as those developed under phase 4 and presented in table 2.5. Changes were made when each theme (noted on post it notes) were separated from the others whilst having all the codes that grouped within it, beneath it. The visual changes made it feel as if it lacked depth, and the researcher tried various different labels for the themes before settling with her choices. The final themes and sub-themes will be presented in Chapter 3.

2.10.6.5 Writing up – phase 6

Reflexive TA is a process where each phase matters and is part of the overall research (not just the results section). As such, writing is also very much embedded within the analysis:

“Writing is a key component of the analytic process for reflexive TA, because the analysis is in the writing around your data.” Braun and Clarke (2022, p 118).

One aim of carrying out mixed methods research and particularly choosing reflexive TA for the qualitative part, was to share participants story as well as the quantitative data they provided. A story that is built from a humanistic perspective so that any potential future changes implemented, are based on the experiences of *people*, not just *numbers*.

2.11 Trustworthiness

Reliability and validity cannot be established in the same way as with quantitative data where psychometric criteria can be applied. However, that does not equate to qualitative measures not being reliable (Willig, 2013). With the design taken in this study, the qualitative data attempts to explain and further understand the data produced in the quantitative part which is why some of the literature has been referenced back to again in the result section. Giddings & Grant (2009) argued that trustworthiness, especially within mixed methods research, is more about the validity and reliability of the tools and framework used, rather

than a trustworthiness in the researcher's ability to interpret the results. Nonetheless, to enhance trustworthiness for the qualitative part of the study, the following steps were taken:

- The method and analysis were clearly described.
- The analytic process was assigned plenty of time to allow for it to be a truly reflexive process. This meant that both codes and themes were not developed in a linear way but were visited and re-visited several times. Therefore, the themes and subthemes that were initially generated were further developed (and changed) and this process has also been reported.
- Each theme was supported by data extracts and quotes to define it.
- Theme development was discussed in supervision and reviewed by the supervisor.
- The researcher kept a reflexive diary in which she wrote about any pre-existing biases, and how they were developed and possibly maintained throughout the research. Extracts of this have also been noted in the section above, explaining the rationale for the chosen methodology.

Guba and Lincoln (1985) suggested four criteria to approach trustworthiness in qualitative research: credibility, transferability, dependability, and confirmability. The study made use of triangulation as it was underpinned by several philosophic views, collected different types of data, and employed more than one methodology. This too is a way of increasing credibility and validity, thereby also the trustworthiness of the findings (Noble & Heale, 2019). Lincoln and Guba (1985) also recommended triangulation as a method to address credibility. Additionally, they suggested peer debriefing, which in this case was achieved through supervision. There were regular meetings with the research supervisor who provided an external check on the research process as well as how the coding and formation of themes were developed. Transferability is notoriously tricky in qualitative research and the mixed methods design in the current study enhances the generalisability and replicability of the qualitative findings. Stahl and King (2020) argued this transferability is only possible when a detailed and rich description of the research process has been offered which the researcher has aimed to fulfil in this Chapter.

Some forms of TA suggest the use of inter-coder reliability where the coding is done by two or more researchers to check for inter-rater reliability which is similar to the 'dependability' suggestion made by Lincoln and Guba (1985). Due to the subjective nature of reflexive TA, this is not recommended for this form of TA (Braun & Clarke, 2022). Furthermore, inter-rater reliability of coding, may simply imply that the researchers have been trained to code in the

same way, and not necessarily demonstrate greater reliability (Terry et al., 2017). However, Lincoln and Guba (1985) further argued that a reflexive auditing could enhance the dependability of the research which was fulfilled in the current research by writing a reflexive diary which was an ongoing process. In the reflexive diary, issues such as bias was noted which further developed the researcher's conscious engagement with the data as well as discussing this in supervision to add external monitoring on the process. Finally, Lincoln and Guba (1985) suggested confirmability as a way to ensure and demonstrate trustworthiness. Most forms of qualitative research do not include this as it involves the idea of getting as close to objective reality as possible. Given the philosophical underpinnings, particularly for the qualitative strand of the study, this was a tricky and perhaps undesirable way to achieve credibility. Furthermore, it does not align well with reflexive TA however, given the mixed methods design, this study allows for some confirmability, perhaps more than is typically seen in qualitative research.

2.12 Ethical Considerations

Ethical consent was applied for the study via the City, University of London ethics committee and granted (ETH1920-1889, ETH2021-1787). The study was identified as 'medium risk' by the ethics committee which required careful consideration to mitigate any risks in this vulnerable group. There were separate participant information sheets, consent forms and debrief sheets for the quantitative and qualitative parts of this study, all of which can be found in the appendices.

There were two main ethical issues to consider in carrying out this research.

Firstly, participants may have become distressed answering questions about their past/current self-harm. To mitigate this distress, it was clearly explained in the participant information sheet that there would be questions around their self-harm. For the qualitative part, the researcher also ensured participants had read the participant information sheet prior to starting. Furthermore, it was explained that they did not have to answer any questions they did not wish to answer and that they could end their participation at any point without further explanation. This applied to both the quantitative and qualitative strands of the research. For the qualitative part, participants would still have received the £15 voucher if they had ended the interview before reaching the end, however all participants who started the interview completed it.

For both strands of the study, participants were advised to stop the research if they felt they were becoming distressed. There was a trigger warning about this prior to agreeing to take part. Participants were also given the contact details of relevant helplines should they wish

to get further support. An escalation procedure was put in place to identify anyone who might participate as a 'cry for help'. The screening questionnaire had a question asking if the person was in need of help now. If this was answered as 'yes', Qualtrics would automatically raise a red flag that was notified to the account holder (the researcher). The study could not proceed after that point, and an automated email was sent to the person providing them information about how to seek help (contact their GP, numbers of helplines or advising them to go to nearest Emergency Department). This was an important step in order to mitigate serious risk whilst working with a population already at increased risk. However, it was clear that many participants had misunderstood the question to imply that overall, they needed help for their self-harm although this was not an urgent crisis nor a cry for help. This was grasped because the researcher received several emails from participants who had been stopped in the screening process from taking part due to the answer they had given to that question. The researcher did contact the research committee to re-evaluate that particular question and it was agreed that this was an essential step for safety, despite the consequence of potentially excluding individuals who wanted to take part and were not in a crisis. This had ethical implications, as always, when excluding individuals from taking part in research. However, it was essential to mitigate serious risk particularly in a doctoral research project with only one main researcher. Perhaps had it been a larger scale research with a larger team, this was a risk that could have been mitigated differently and thereby included more participants, who wanted to take part.

When participants signed the consent form for the qualitative part, they also agreed to have a follow-up call with the researcher which would take place within two working days of the interview. This step was added into the methodology to mitigate risks associated with this group, as it was recognised participants may feel distressed talking about their self-harm and past experiences. At the start of the interview, this agreement, as outlined in the qualitative consent form, was discussed and a day and time for the call was arranged. The researcher spoke to each of the seven participants who were interviewed within the desired two working days. The feedback was that they appreciated the care and follow-up. No participants reported distress that needed to be referred on or dealt with further. This was an important step for the researcher. When also working clinically, it can be difficult to separate the research and clinical roles, however, perhaps that is not necessarily negative. The participants in the qualitative part shared that this follow-up step made them feel cared for and that their participation as well as their well-being was taken seriously and dealt with empathetically.

Secondly, participants may have discovered they had traits of autism and this information may have been distressing to them. The information sheet clearly explained that the AQ10 is a screening tool and not diagnostic. The questionnaire did not include any scores or otherwise indicate that they did or did not have traits of autism, however they may have looked this up as the AQ10 is available for free online. In addition, during the interviews the interviewer did not disclose to the participants if they had traits of ASC. Should participants have felt distressed about their answers they could have contacted the researcher for further information about what the AQ10 measures meant and should they wish to pursue a route for diagnosis (or confirmation of not having ASC) information was provided in the participant information sheet, detailing how to get more information for following this route.

2.12.1 Data storage

All data was stored securely, for both parts of the study. The data for the quantitative part was collected via Qualtrics which is a safe platform approved by City, University of London. Data was stored on an encrypted device (e.g., laptop, hard drive, USB). All data was anonymised prior to storage. Following City, University of London guidelines, all quantitative data collected will be kept for 10 years due to the possibility of publication. Following that, all data will be destroyed in line with City, University of London's policy guidelines on destruction of data. Electronic data that must be destroyed must be logged with the University via the Service Now service. This will allow for secure destruction of electronic records and detailed audit trails with a validation of destruction notice.

All video recordings carried out as part of the qualitative strand of the research will be deleted following the viva (approximately March 2023). The justification for this is, that despite the possibility of any future publications, the recordings will have been transcribed and neither necessary nor ethical to keep. The recordings will be destroyed in line with City, University of London's policy guidelines on destruction of data. Data stored as hard copies, i.e., transcripts, will be shredded at City University using a cross-cut shredder and disposed of via the university's confidential waste management. The transcripts will be stored safely for 10 years, as recommended by the university. All transcripts will be anonymised prior to storage.

2.12.2 Service User Consultation

Patient and participant involvement (PPI) in mental health has progressed greatly in the last two decades (Wykes et al., 2021) and was an important part of this research too. To enhance the quality and authenticity of the study design and procedures, a service user group based at City, University of London was consulted prior to commencing the

research. It was felt that their expertise and experiences would provide invaluable feedback on how best to proceed. The group is known as SUGAR (Service Users and Carers Group Advising on Research) and was founded in 2009, initially to consult and actively be part of nursing research (Simpson et al., 2014) but now consults many different schools of studies on research.

The research proposal was presented to the service user group, and the group had opportunities to comment and give feedback. Their feedback was very positive. The researcher had been concerned about participants labelling themselves as autistic after answering questions from the AQ10 and the potential emotional distress this might cause, however this was not a concern for the group (in fact, they all agreed on this). They advised that answering questions and talking about their self-harm experiences, seemed more likely to act as a trigger for participants. They suggested having a trigger warning and making it very clear to participants that they could withdraw at any point without further explanation was needed and should be encouraged by the researcher should they feel distressed, particularly in the one-to-one interviews.

Furthermore, it was discussed whether there should be an exclusion criterion for individuals with ASC as their data from the AQ10 could not be included in the analysis for the main hypothesis of the quantitative part. It would potentially have skewed the data and furthermore, the research question is interested in exploring self-harm in people with *traits* of ASC but no diagnosis. The service user group felt that the study should not exclude individuals wanting to take part due to a diagnosis of ASC. The group as a whole reported many positive effects of taking part in research and being excluded due to a condition could be harmful. Upon further discussion with her supervisors, the researcher took the service users group's advice and did not exclude individuals with ASC from the data collection. The data collected from individuals with ASC can also be used to further validate the AQ10 scale.

Service user consultation was viewed as an important part of the development of the research. Indeed, Hanley et al. (2004) argued that such a consultation should be the first of three steps: consultation, collaboration, and service user control. Being a doctoral research project, the two latter steps were not applied optimally. However, by including a qualitative part the researcher felt it was given some inclusion in the overall research project. For future studies the researcher would try and include consultations and active co-researching with groups of people more specifically related to the topic, in this instance people with lived experiences of self-harm and with ASC.

2.13 Reflexivity

In the section on theoretical positioning bias was mentioned. The researcher recognised that her long-standing interest in ASC gave rise to potential bias(es). Furthermore, having learned from previous research that people with ASC are more likely to attempt suicide (Richards et al., 2019) and die from suicide (Hedley & Uljarevic, 2018 and Hirvikoski et al., 2016) there would be a prediction that these numbers would be reflected in the self-harm population, as we also know that self-harm is the greatest predictor of suicide (Hawton et al., 2003; Tyrer, 2004). That may be scientific logic, however it could become problematic if the researcher was 'hoping' for certain outcomes to prove a point, alongside a deep desire to help this population and ultimately prevent them from attempting/committing suicide as well as aiming for an overall better quality of life. The researcher has addressed these potential biases in three ways. Firstly, by openly acknowledging and discussing it. Secondly, by discussing this in ongoing research supervision. Thirdly, by keeping a reflective research diary. Finally, by taking a mixed methods approach, which allowed the participants to be heard and to use their views to explain the quantitative data, rather than base this purely on the researcher's own (biased) interpretations and the data from the quantitative strand. Furthermore, reflection was given space around the fact that the analysis of the chosen qualitative strand was subjective, and any interpretations of the data should be carefully evaluated. Reflexive TA highlights the need for subjectivity when using this approach, which fitted best with the chosen research design and the researcher's biases on the topic.

Engaging with the data regularly and interviewing participants as well as spending almost every day for the past two year reading about self-harm, suicide and ASC resulted in the reflexive diary containing some very emotional, and distressing entries. Reading through the diary, it was clear that at times it was difficult for the researcher to contain some of the very distressing information gathered from both parts of the study, but in particular the interviews. The researcher was also working clinically (also with clients who were self-harming) and having a family of her own with young children (one child just entering the teen years), at times it felt like an overwhelming emotional load. To some extent, the researcher also had to deal with the separate roles as clinician and researcher, and there were times when she felt it was necessary to withhold instinctive therapeutic input during the interviews as she was not in a clinical role. The researcher dealt with these emotions and challenges through supervision (both clinical and research) as well as engaging in continuous personal therapy. There were also some very positive entries in the diary, reflecting on comments and emails received from the participants thanking the researcher for researching this topic and letting

them have a voice. In addition to the support the researcher received, those moments where key in keeping the researcher positive and continuing.

Chapter 3: Results

In this chapter findings from the data collected for the quantitative and qualitative strands of this research are presented sequentially. The integration of the two strands took place at the interpretation point as recommended by Hanson et al. (2005).

3.1 Quantitative strand analyses

Data collected on Qualtrics was exported to IBS SPSS Statistics 28.0, and all analyses reported in this study were carried out using this software. The data was cleaned, labelled and variables modified appropriately, according to the type of analyses carried out. The AQ10 questions were set up with forced entries which meant data was only missing if participants did not complete the questionnaire. Therefore, all respondents who qualified to take part in the study following the screening process outlined in Chapter 2 completed all the AQ10 items. As a result, data imputation for missed responses was not necessary. Descriptive statistics and test assumptions were examined and reported before proceeding with testing the study's primary hypothesis.

The hypothesis, exploring if the mean score on the AQ10 was significantly higher than that of the general population, was tested by carrying out a one sample t-test which will be reported following the assumptions and descriptive statistics.

3.1.1 Types of variables

There is only one main outcome variable which, for the purpose of the hypothesis, is measured at a continuous level. This is the mean score of the AQ10. The score of the AQ10 was also divided into categories based on being above clinical cut-off (a mean score ≥ 6) or below clinical cut-off (a mean score < 6). The mean AQ10 score for the sample was then compared to the mean AQ10 score for a large Swedish cohort sample ($N = 47,742$) which was used as the general population comparison (Lundin et al., 2019).

Further variables were either nominal or continuous, although these were used for screening or to gather relevant demographics and patterns of behaviours. For example, ways of self-harming, number of times participants had self-harmed and if there had been any deliberate attempts of suicide. As such, there were no outliers identified in the data set, except for the variable asking about how many times participants had self-harmed, as some wrote over one million times. To share and report this important data, this was then put into categories which bracketed the amount of times people reported they had self-harmed. To account for

some of the additional factors, measured on categorical levels, the AQ10 scores were split into two groups, under one of which respondents fell: above or below clinical cut-off, applying the criteria as described above.

3.1.2 Assumptions and distribution of data

3.1.2.1 Skewness and Kurtosis

Distribution of the AQ10 scores is displayed in a histogram (Figure 3.1) and the corresponding P-P plot as illustrated in Figure 3.2. The data was visually inspected on the histogram and indicated a normal distribution. The corresponding P-P plot in Figure 3.2 supported this as it can be seen that the data points fall very close to the 'ideal' diagonal line. Usually this would not require any further analysis or reports however, to err on the side of caution, the skewness and kurtosis data has been reported in Table 3.1 (Field, 2018).

Figure 3.1

AQ10 scores for the whole sample

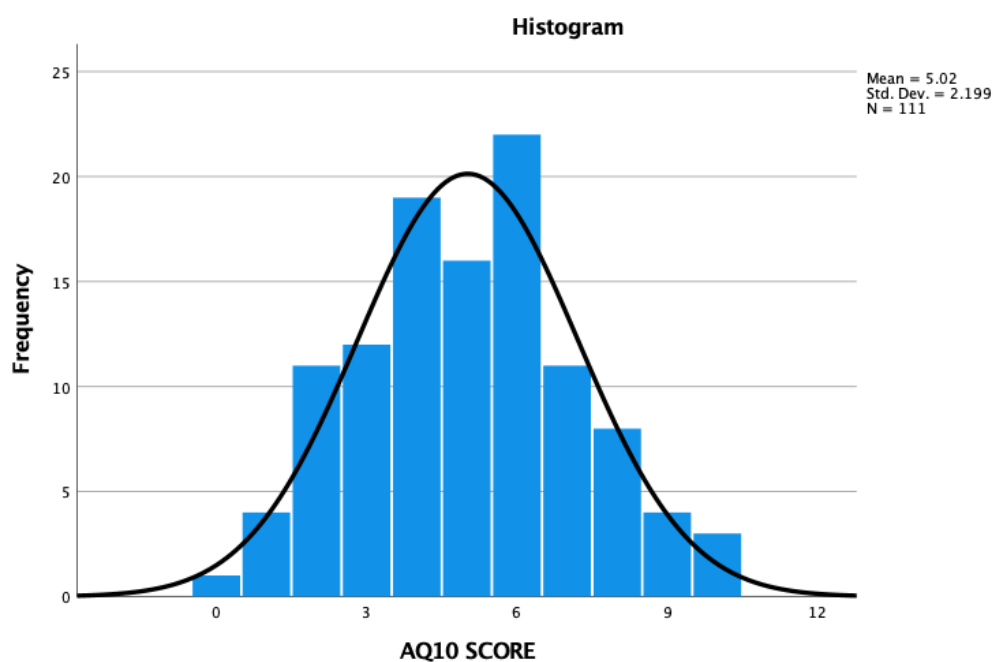
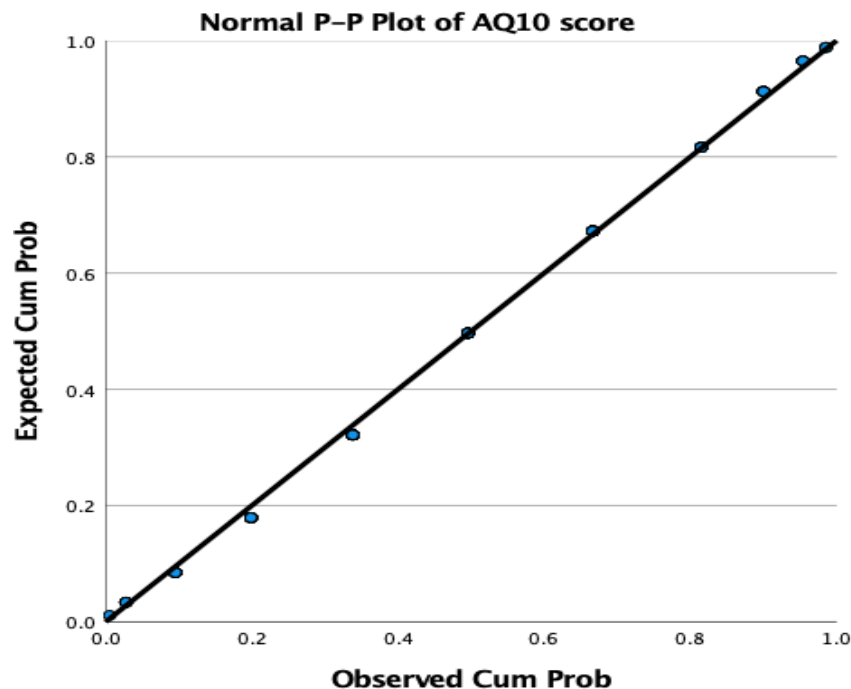


Figure 3.2

P-P plot of AQ10 scores for the whole sample



The skewness and kurtosis reported in Table 3.1 were calculated using SPSS. A value of 0 indicates a normal distribution (Field, 2018). Both the skewness and kurtosis are close to zero, and in line with the histogram and P-P plot. The values were converted to z-scores (by dividing by the standard error) to carry out an additional check for normality. The AQ10 scores had a skewness z-score of $0.118/0.229 = 0.515$ and a kurtosis z-score of $-0.421/0.455 = -0.925$. Z-scores greater than 1.96 indicate they are significant which was not the case with the z-scores for this data. Thus, it further supports the conclusion that the data collected represents a normal distribution.

Table 3.1

Skewness and Kurtosis for continuous dependent variable, AQ10 scores

Skewness		Kurtosis	
Statistic	Std. Error	Statistic	Std. Error
0.118	0.229	-.421	0.455

3.1.2.2 Kolmogorov-Smirnov

Another way of checking if the data deviates from a comparable sample, is to carry out a Kolmogorov-Smirnov (K-S) test. The researcher has chosen to report Kolmogorov-Smirnov over Shapiro-Wilk, based on the fairly large sample size, as recommended by Field (2009). The calculations suggested that the AQ10 scores, $D(111) = 0.105$, $p = 0.004$, did not meet the assumptions for normal distribution. However, there is evidence to still argue for parametric testing. Field (2018) recommends using, interpreting, and making decisions regarding statistical testing based on K-S, with caution. Moreover, it is recommended to use parametric testing for nonnormal samples when N is greater than 20. Based on the contradictory results from the tests of normality, it is not completely clear if the assumptions for non-parametric testing are met. Parametric testing compares means within continuous variables whereas non-parametric testing looks at rankings. Based on the normal appearing histogram in Figure 3.1, the kurtosis and skewness results as well as Field's (2018) recommendations, the researcher decided to carry out the main hypothesis testing using a parametric test (to be reported further below).

3.1.3 Demographics

All participants were assigned a code ID to ensure complete anonymity and the seven participants who also took part in the interview were allocated pseudonyms which were then used when sharing extracts from the transcripts. Table 3.3 gives details of the numbers. The potential explanation for over-representation of females in the study sample will be discussed further in Chapter 4.

Table 3.2

Gender demographics

Gender	N	%
Female	99	89.2
Male	6	5.4
Non-binary/third gender	6	5.4

The data in Tables 3.2 and 3.3 shows that the vast majority of participants were female (91%) and between the ages of 18-35 with a fairly even split between the first two age

brackets: 18-25 and 26-35. No participants over 65 years of age took part in the study. Table 3.3 gives a more detailed overview of the split in the age groups of the participants of the overall sample which outlines that 81% of the sample is between the ages of 18-35 years old.

Table 3.3

Age descriptive, N=111

Age	N	%
18-25	44	39.6
26-35	46	41.4
36-45	16	14.4
46-55	4	3.6
56-65	1	0.9

3.1.4 Quantitative hypothesis testing

The main hypothesis for the quantitative part of the study was tested and results will be reported in this section. The hypothesis stated the following: H_1 : Individuals who self-harm will be significantly more likely to have traits of ASC compared to the general population. To test H_1 , the mean of the sample was compared to the general population, taken from the study by Lundin et al. (2019). To examine if the difference in the two means were statistically significant, a one-sample t-test was carried out. The means and standard deviations (SD) reported in table 3.4 clearly demonstrate a difference in the two means. The range is 0 – 10 with scores of 6 and above indicating traits of ASC which should be further investigated/explored to consider full assessment for ASC. Within the sample, 43.24% scored above the clinical threshold for ASC and 56.76% scored below.

Table 3.4

Mean AQ10 scores

	N	Mean	SD	SD Error Mean
Current data set	111	5.02	2.199	0.209
General population	47,742	1.95	38.843	0.178

A one-sample t-test was conducted to compare the AQ10 scores for our self-harm group and the general population. The results of the t-test are reported in Table 3.5.

There was a significant difference in scores for the study sample ($M = 5.02$, $SD = 2.1999$) and the general population ($M = 1.95$, $SD = 38.843$); $t(110) = 14.699$, $p = <.001$).

The experimental hypothesis (H_1) was confirmed through the t-test and the difference in the two means was significant for both a one-sided and two-sided significance level.

Table 3.5

SPSS output for one-sample t-test comparing mean difference in AQ10 scores

One-Sample Test

Test Value = 1.95							
	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
AQ10 score	14.699	110	<.001	<.001	3.06802	2.6544	3.4817

3.1.5 Further quantitative descriptive and analyses

To investigate any other trends, further analyses were carried out with the additional data collected through the questionnaire.

Firstly, the mean AQ10 score was calculated for the 8 participants who reported they had a confirmed diagnosis of ASC and passed the screening questions. Their mean AQ10 score was 7 which further validated the use of the chosen scale to measure traits of ASC.

The ISAS questionnaire, which formed part of the overall questionnaire on Qualtrics, asked participants additional questions about their self-harm and their responses are recorded in Tables 3.6 and 3.7. In Table 3.6 it is illustrated that 55% of the 111 participants included in analyses, had self-harmed with the intent to kill themselves on at least one occasion and 82% reported they still self-harmed at times. Table 3.7 inform that 77% of the sample reported they would like to stop self-harming.

Table 3.6*Self-harm descriptive from the whole sample, N=111*

N=111	Yes		No	
	N	%	N	%
Have you ever self-harmed?	111	100	0	0
Have you ever self-harmed with intent to kill yourself?	61	55	50	45
Do you still self-harm at times?	91	82	20	18

Of those who had self-harmed with the intent to kill themselves, 54% scored above clinical cut-off on the AQ10 and 55% scored below. Chi-square analyses found no significant differences between the groups (above/below clinical cut-off) and the questions posed in Table 3.6.

Three participants did not fill in the questionnaire beyond the AQ10 questions which leaves N=108 for the following data presented in Table 3.7.

Table 3.7*Self-harm descriptive excluding missing data, N=108*

N=108	Yes		No		Sometimes	
	N	%	N	%	N	%
Do/did you want to stop self-harming?	86	77.5	22	19.8	-	-
Do you experience physical pain when you self-harm?	39	35.1	24	21.6	45	40.5
When you self-harm are you alone?	98	88.3	-	-	10	9.0

Associations for self-harm with AQ10 scores

A logistic regression model was fitted with the AQ10 scores (two groups: above or below the clinical threshold) as the outcome. In Table 3.8 the odds ratios (OR), lower (LB) and upper

(UB) bounds of the 95% confidence intervals (CIs) as well as p-values are presented. In the univariable models, age was significantly associated with higher odds of scoring above the clinical threshold. More specifically, those aged 26 to 35 were more than twice likely to be in the above clinical cut-off group for ASC than those aged 18-25 (OR: 2.74, 95% CI: 1.16 to 6.45, $p = 0.02$). Those aged 36-45 years had even higher chances of scoring higher ($p = 0.03$). There were no differences in the odds of getting higher scores by gender. Having a mental health disorder was associated with higher chances of getting a higher AQ10 score although this was not significant ($p = 0.36$). Further results regarding specific mental health conditions will be presented in a section further below. Those who had self-harmed to kill themselves tended to have slightly lower odds of attaining a higher AQ10 score compared to those who did not, although again this was not significant ($p = 0.88$), while those who still self-harmed had higher chances of scoring highly on the AQ10. Being in the highest age group slightly reduced the odds of getting a higher ASC score. The odds of getting an above clinical threshold score tended to decrease for those who felt no pain or sometimes felt pain when self-harming, although these associations were once again non-significant.

When all variables were included, the association of age with the outcome maintained the same direction, although the estimates were slightly attenuated. Only the 26–35-year group had a significant association with the outcome. The age effect was reversed for males in the univariable model, but it is worth noting that the frequencies for males and binary groups were very low thus difficult to draw conclusions from this data.

Table 3.8*Estimates from logistic regression models*

		Univariable models				Multivariable model			
		OR	LB	UB	P	AOR	LB	UB	P
Age group									
	18-25								
	26-35	2.74	1.16	6.45	0.02	2.68	1.01	7.13	0.05
	36-45	4.11	1.14	14.72	0.03	2.68	0.66	10.78	0.17
	46-55	0.91	0.14	6.01	0.92	0.68	0.09	5.00	0.71
Sex									
	Female								
	Male	1.41	0.25	8.09	0.70	0.86	0.13	5.64	0.87
	Non-binary	0.14	0.02	1.26	0.08	0.26	0.02	2.97	0.28
Mental health condition (Yes)		1.65	0.57	4.76	0.36	2.24	0.61	8.21	0.22
Self-harmed to kill yourself (Yes)		0.95	0.44	2.01	0.88	0.71	0.28	1.77	0.46
Still self-harm (Yes)		1.52	0.56	4.17	0.41	1.30	0.41	4.17	0.66
Age started SH, years		0.94	0.84	1.04	0.20	0.94	0.85	1.05	0.30
Pain during SH									
	Yes								
	No	0.58	0.21	1.60	0.29	0.32	0.09	1.09	0.07
	Sometimes	0.72	0.30	1.71	0.46	0.47	0.17	1.31	0.15

3.1.5.1 Methods of self-harm

Furthermore, data was collected about methods used to self-harm. All the 108 participants who shared they had self-harmed at least once in their life reported to have been cutting. The most frequent number of times that participants reported to have engaged in cutting as a form of self-harm was 500 (N = 20), 100 (N = 18) and 1000 (N = 11). Chi-square cross-tabulation analyses were carried out to explore any potential relationships between methods of self-harm and the two split groups (above/below AQ10 clinical cut-off). These can be found in Table 3.9 and based on chi-square or Fisher's exact test, the results indicate no significant differences between the two groups in their methods used for self-harm.

Table 3.9

Chi-square cross-tabulations of methods of self-harm in the above/below AQ10 cut-off groups.

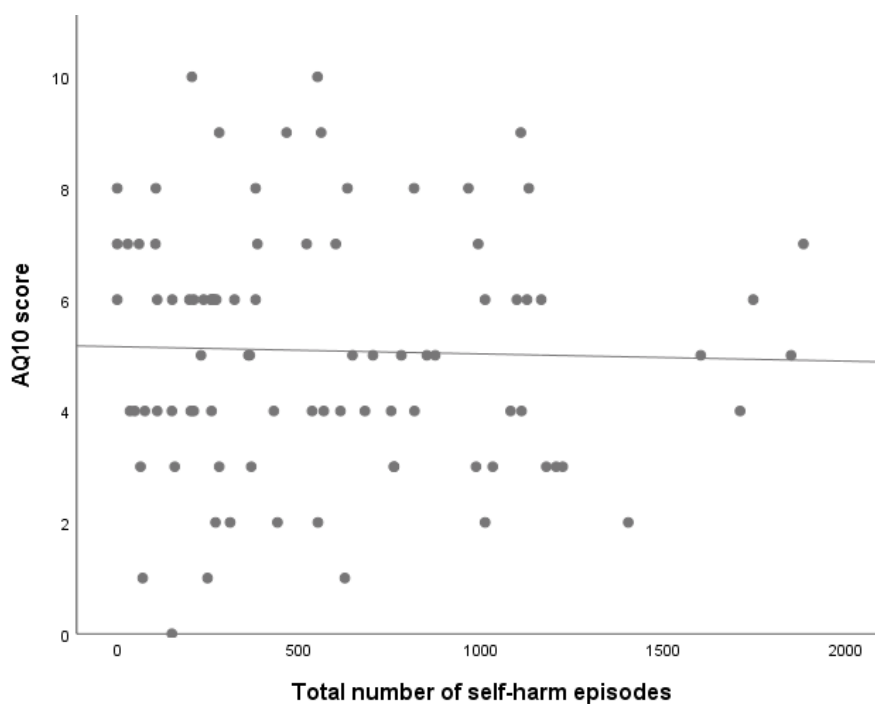
		Above AQ10 cut-off		Total	P-value
		Yes (N=48)	No (N=63)		
Cutting	No	5 (10)	1 (2)	6 (5)	0.083
	Yes	43 (90)	62 (98)	105 (95)	
Biting	No	45 (94)	60 (95)	105 (95)	1.000
	Yes	3 (6)	3 (5)	6 (5)	
Burning	No	41 (85)	55 (87)	96 (86)	0.774
	Yes	7 (15)	8 (13)	15 (14)	
Carving	No	46 (96)	63 (100)	109 (98)	0.185
	Yes	2 (4)	0 (0)	2 (2)	
Pinching	No	44 (92)	62 (98)	106 (95)	0.164
	Yes	4 (8)	1 (2)	5 (5)	
Pulling hair	No	43 (90)	61 (97)	104 (94)	0.236
	Yes	5 (10)	2 (3)	7 (6)	
Scratching	No	37 (77)	53 (84)	90 (81)	0.348
	Yes	11 (23)	10 (16)	21 (19)	
Banging	No	37 (77)	55 (87)	92 (83)	0.157
	Yes	11 (23)	8 (13)	19 (17)	
Interfere with wound	No	37 (77)	53 (84)	90 (81)	0.348
	Yes	11 (23)	10 (16)	21 (19)	
Rubbing skin	No	45 (94)	63 (100)	108 (97)	0.078
	Yes	3 (6)	0 (0)	3 (3)	
Sticking needles	No	47 (98)	62 (98)	109 (98)	1.000
	Yes	1 (2)	1 (2)	2 (2)	
Swallow substances	No	44 (92)	60 (95)	104 (94)	0.463
	Yes	4 (8)	3 (5)	7 (6)	

Correlations between number of self-harm episodes and AQ10 score

Data representing the number of self-harm episodes were recorded as a continuous variable. A scatterplot of the AQ10 score versus number of total self-harm episodes showed a weak negative relationship as demonstrated in figure 3.3. The number of self-harm episodes were restricted to <2000 (all participants reporting ≥ 2000 were treated as missing). This was necessary to carry out meaningful analyses due to some participants, for example, reporting up to a million occasions of cutting. Both number of self-harm episodes ($p < 0.001$) and AQ10 scores ($p = 0.034$) were not normally distributed based on the S-W's test. Thus, the Spearman's rank correlation coefficient was calculated and estimated to be -0.063 and this was not statistically significant.

Figure 3.3

Correlational scatterplot for number of self-harm episodes and AQ10 score

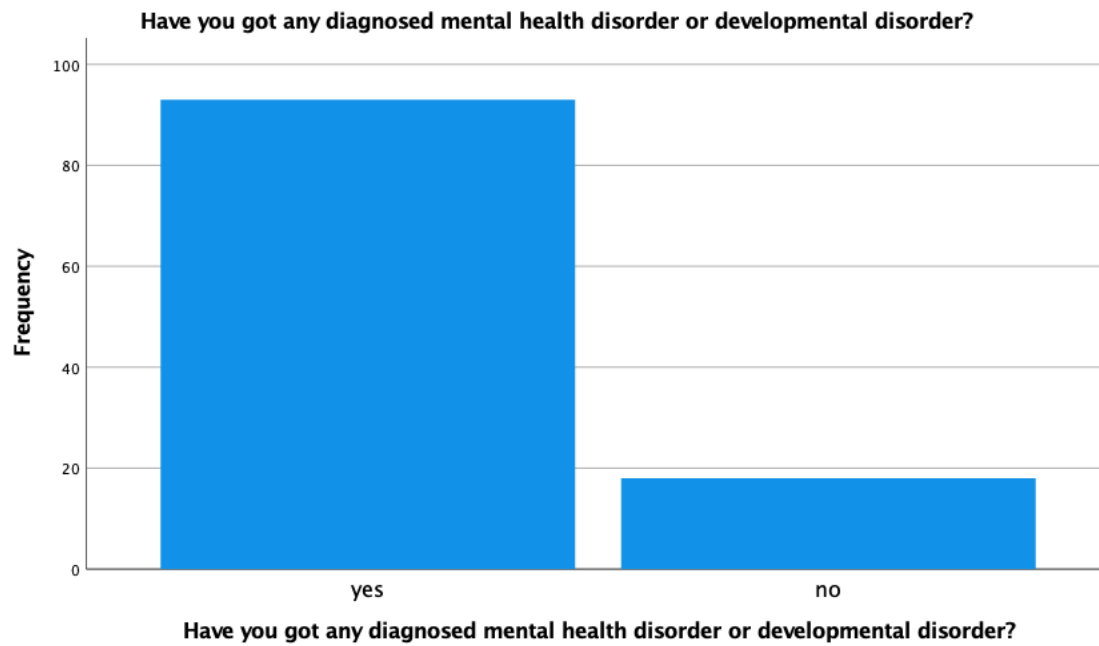


3.1.5.2 Mental health conditions

Nearly 89% reported to have had a mental health and/or developmental disorder diagnosis. This did not include a diagnosis of ASC as this was an exclusion criterion for the final analyses. The bar chart in Figure 3.4 clearly shows most of the participants had a mental health diagnosis.

Figure 3.4

Mental health and/or developmental disorder diagnosis



The mental health conditions that participants reported have been summarised in Table 3.10. The total N is 108 as there was missing data for 3 participants for this section.

Table 3.10

Self-reported mental health conditions (note: respondents could enter more than one option).

Mental health conditions	Above AQ10 cut-off	Below AQ10 cut-off
Intellectual disability	1	-
Global developmental delay	1	-
Unspecified intellectual disability	1	-
Attention-deficit/hyperactivity disorder	7	6
Unspecified attention-deficit/hyperactivity disorder	2	-
Specific Learning Disorder	3	4
Developmental Coordination Disorder	-	1
Tic Disorders	-	1
Persistent (Chronic) Motor or Vocal Tic Disorder	-	1
Unspecified Tic Disorder	-	1
Schizotypal (Personality) Disorder Delusional Disorder	1	
Brief Psychotic Disorder / Schizophrenia	2	1
Schizoaffective Disorder Substance/Medication Induced / Psychotic Disorder	-	1
Bipolar I Disorder	2	2
Bipolar II Disorder	5	4
Unspecified Bipolar and Related Disorder	3	1
Disrupted Mood regulation Disorder	-	1
Major Depressive Disorder	19	14
Unspecified Depressive Disorder	10	13
Separation Anxiety Disorder	6	1
Social Anxiety Disorder (Social Phobia)/Panic Disorder	16	4
Panic Attack (Agoraphobia)	5	5
Generalised Anxiety Disorder	25	24
Unspecified Anxiety Disorder	7	8
OCD	4	3
Body Dysmorphic Disorder	5	2
Hoarding Disorder	1	1
Trichotillomania (Hair-Pulling Disorder)	3	1
Excoriation (Skin-Picking) Disorder	3	2
Unspecified Obsessive-Compulsive and Related Disorder	-	1
Selective Mutism	1	-
Posttraumatic Stress Disorder	16	16

Table 3.10 continued	Above AQ10	Below AQ10
Mental health conditions	cut-off	cut-off
Acute Stress Disorder	1	-
Dissociative Identity Disorder	3	4
Avoidant/Restrictive Food Intake Disorder/Anorexia/Bulimia	3	2
Binge-Eating Disorder	1	6
Other Specified Eating Disorder	4	1
Oppositional Defiant Disorder/Conduct Disorder	2	-
Borderline Personality Disorder	14	17
Histrionic Personality Disorder	-	1
Narcissistic Personality Disorder	1	1
Avoidant Personality Disorder	1	1
Dependent Personality Disorder/Obsessive-Compulsive PD	-	1
Other Specified Personality Disorder	2	-

Chi-square cross-tabulations were carried out to test for associations between the two AQ10 categories (above/below clinical cut-off) and mental health conditions. Table 3.11 summaries the disorders that were significantly associated with the AQ10 outcome. The chi-square analyses found two mental health conditions to be significantly associated with AQ10 scores. Individuals who scored above clinical cut-off on the AQ10 were significantly more likely to report having major depressive disorder and social anxiety disorder. Cross-tabulations were not run for each condition reported in Table 3.10 as they did not all fulfil the minimum cell frequency criteria.

Table 3.11

Cross-tabulations of mental health conditions significantly associated with AQ10 category.

	Above AQ10		Total	P-value
	cut-off			
	Yes (N=48)	No (N=63)		
Major Depressive Disorder				
No	29 (60)	49 (78)	78 (70)	0.047
Yes	19 (40)	14 (22)	33 (30)	
Unspecified Depressive Disorder				
No	38 (79)	48 (76)	86 (77)	0.710
Yes	10 (21)	15 (24)	25 (23)	
Social Anxiety Disorder				
No	32 (67)	59 (94)	91 (82)	<0.001
Yes	16 (33)	4 (6)	20 (18)	
Generalised Anxiety Disorder				
No	23 (48)	39 (62)	62 (56)	0.141
Yes	25 (52)	24 (38)	49 (44)	

Additionally, associations of mental health disorders with odds of scoring above clinical cut-off on the AQ10 were explored. In Table 3.12 the odds ratios (OR), lower (LB) and upper (UB) bounds of the 95% confidence intervals (CIs) as well as p-values are presented. Results from the regression analyses which are reported demonstrate that participants with major depressive disorder and social anxiety disorder had much higher chances of scoring above the clinical cut-off. Those who reported to have a social anxiety disorder were more than 7 times likely to score 6 or above on the AQ10 and this association was statistically significant ($p = 0.001$). Those who reported to have a major depressive disorder were over twice as likely to score 6 or above on the AQ10 and this association was only just significant ($p = 0.05$).

Table 3.12

Estimates from logistic regression models for four frequently reported mental health conditions.

	OR	LB	UB	P
Major depressive disorder	2.293	1.001	5.254	0.050
Unspecified depressive disorder	0.842	0.340	2.084	0.710
Social anxiety disorder	7.375	2.273	23.932	0.001
Generalised Anxiety Disorder	1.766	0.825	3.781	0.143

3.1.5.3 Reasons for self-harm

In the online questionnaire filled out by the participants, there were questions from the ISAS around the reasons for self-harm. The responses for these questions have been summarised in Table 3.13. Cross-tabulations of these ISAS questionnaire items against the AQ10 score as a binary variable were run and accompanying Chi-squared test p-values are also reported in Table 3.13. None of these were significant, however, responses are of great interest as they aid a better understanding of why people self-harm as well as discrediting unhelpful myths that people self-harm for attention. This will be discussed further in Chapter 4.

Table 3.13

Responses from the ISAS to the questions “When I self-harm I am....”. Split into two groups: above and below clinical cut-off. Percentages reported in brackets.

	Above AQ10 cut-off (N=48) numbers in first row. Below AQ10 cut-off (N=63) numbers in second row. Percentages in brackets			
Questions on ISAS I and II	Not relevant	Somewhat relevant	Very relevant	P-value
When I self-harm I am... :				
Calming myself	6 (13.3) 7 (11.1)	17 (37.8) 17 (27.0)	22(48.9) 39 (61.9)	0.393
Creating a boundary between myself and others	27 (60.0) 38 (60.3)	7 (15.6) 11 (17.5)	11 (24.4) 14 (22.2)	0.963
Punishing myself	7 (15.9) 6 (9.5)	16 (36.4) 16 (25.4)	21 (47.7) 41 (65.1)	0.196
Giving myself a way to care for myself (by attending to the wound)	26 (59.1) 46 (73.0)	14 (31.8) 10 (15.9)	4 (9.1) 7 (11.1)	0.151
Causing pain so I will stop feeling numb	6 (13.6) 12 (19.0)	11 (25.0) 15 (23.8)	27 (61.4) 36 (57.1)	0.762
Avoiding the impulse to attempt suicide	14 (31.1) 22 (34.9)	13 (28.9) 16 (25.4)	18 (40.0) 25 (39.7)	0.890
Doing something to generate excitement or exhilaration	27 (60.0) 45 (71.4)	12 (26.7) 15 (23.8)	6 (13.3) 3 (4.8)	0.233
Bonding with peers	42 (93.3) 60 (95.2)	2 (4.4) 2 (3.2)	1 (2.2) 1 (1.6)	1.000
Letting others know the extent of my emotional pain	26 (57.8) 42 (66.7)	12 (26.7) 13 (20.6)	7 (15.6) 8 (12.7)	0.639
Seeing if I can stand the pain	28 (63.6) 45 (71.4)	7 (15.9) 13 (20.6)	9 (20.5) 4 (6.3)	0.092
Creating a physical sign that I feel awful	13 (28.9) 27 (42.9)	15 (33.3) 19 (30.2)	17 (37.8) 16 (25.4)	0.250
Getting back at someone	41 (91.1) 52 (82.5)	3 (6.7) 9 (14.3)	1 (2.2) 2 (3.2)	0.523
Ensuring that I am self-sufficient	34 (75.6) 52 (82.5)	5 (11.1) 6 (9.5)	6 (13.3) 5 (7.9)	0.607
Releasing emotional pressure that has built up inside of me	1 (2.2) -	4 (8.9) 4 (6.3)	40 (88.9) 59 (93.7)	0.459
Demonstrating that I am separate from other people	36 (80.0) 56 (88.9)	6 (13.3) 5 (7.9)	3 (6.7) 2 (3.2)	0.396
Expressing anger towards myself for being worthless or stupid	4 (8.9) 3 (4.8)	14 (31.1) 17 (27.0)	27 (60.0) 43 (68.3)	0.555
Creating a physical injury that is easier to care for than my emotional distress	11 (24.4) 18 (28.6)	10 (22.2) 10 (15.9)	24 (53.3) 35 (55.6)	0.683
Trying to feel something (as opposed to feeling nothing) even if it is physical pain	5 (11.1) 11 (17.5)	11 (24.4) 18 (28.6)	29 (64.4) 34 (54.0)	0.503
Responding to suicidal thoughts without actually attempting suicide	9 (20.0) 15 (23.8)	11 (24.4) 20 (31.7)	25 (55.6) 28 (44.4)	0.517
Entertaining myself or others by doing something extreme	38 (84.4) 61 (96.8)	4 (8.9) 1 (1.6)	3 (6.7) 1 (1.6)	0.080

Table 3.13 continued	Above AQ10 cut-off (N=48) numbers in first row. Below AQ10 cut-off (N=63) numbers in second row. Percentages in brackets			
Fitting in with others	45 (100)	-	-	1.000
	61 (96.8)	1 (1.6)	1 (1.6)	
Seeking care or help from others	36 (80.0)	7 (15.6)	2 (4.4)	0.626
	46 (73.0)	14 (22.2)	2 (3.2)	
Demonstrating I am tough or strong	40 (88.9)	2 (4.4)	3 (6.7)	0.742
	55 (87.3)	5 (7.9)	3 (4.8)	
Proving to myself that my emotional pain is real	18 (40.0)	16 (35.6)	11 (24.4)	0.253
	34 (54.0)	14 (22.2)	15 (23.8)	
Getting revenge against others	41 (91.1)	3 (6.7)	1 (2.2)	1.000
	57 (90.5)	4 (6.3)	2 (3.2)	
Demonstrating that I do not need to rely on others for help	32 (71.1)	8 (17.8)	5 (11.1)	0.098
	55 (87.3)	4 (6.3)	4 (6.3)	
Reducing anxiety, frustration, anger, or other overwhelming emotions	1 (2.2)	5 (11.1)	39 (86.7)	0.794
	1 (1.6)	10 (15.9)	52 (82.5)	
Establishing a barrier between myself and others	33 (73.3)	7 (15.6)	5 (11.1)	0.941
	48 (76.2)	9 (14.3)	6 (9.5)	
Reacting to feeling unhappy with myself or disgusted with myself	8 (17.8)	14 (31.1)	23 (51.1)	0.170
	4 (6.3)	24 (38.1)	35 (55.6)	
Allowing myself to focus on treating the injury, which can be gratifying or satisfying	29 (64.4)	10 (22.2)	6 (13.3)	0.210
	50 (79.4)	9 (14.3)	4 (6.3)	
I am making sure I am still alive when I don't feel real	20 (44.4)	12 (26.7)	13 (28.9)	0.676
	33 (52.4)	13 (20.6)	17 (27.0)	
Putting a stop to suicidal thoughts	19 (42.2)	18 (40.0)	8 (17.8)	0.318
	26 (41.3)	18 (28.6)	18 (28.6)	
Pushing my limits in a manner akin to skydiving or other extreme activities	36 (80.0)	7 (15.6)	2 (4.4)	0.455
	54 (85.7)	5 (7.9)	3 (4.8)	
Creating a sign of friendship or kinship with friends or loved ones	45 (100)	-	-	1.000
	61 (96.8)	1 (1.6)	1 (1.6)	
Keeping a loved one from leaving or abandoning me	40 (88.9)	4 (8.9)	1 (2.2)	0.884
	55 (87.3)	6 (9.5)	2 (3.2)	
Proving I can take the physical pain	34 (75.6)	7 (14.6)	4 (8.9)	0.974
	48 (76.2)	9 (14.3)	5 (7.9)	
Signifying the emotional distress I'm experiencing	9 (20.5)	16 (36.4)	19 (43.2)	0.504
	18 (28.6)	24 (38.1)	21 (33.3)	
Trying to hurt someone close to me	38 (84.4)	6 (13.3)	1 (2.2)	0.436
	57 (90.5)	4 (6.3)	1 (1.6)	
Establishing that I am autonomous/independent	35 (77.8)	5 (11.1)	5 (11.1)	0.294
	56 (88.9)	3 (4.8)	4 (6.3)	

Additional reasons for self-harm were rather descriptive: 'feeling alone or different', 'to feel like my body is my own', 'as a reward for getting through something difficult', 'to be able to cry and feel emotion', 'escape from reality' and 'a sexual high'. The remaining 'other' reasons given could have fitted in one of the optional boxes.

3.1.6 Summary of quantitative strand results

The primary research aim for the quantitative strand was to confirm (or reject) the hypothesis that individuals who self-harm are more likely to have traits of ASC. This was tested by conducting a one-sample t-test to compare the research sample (N = 111) to the general population, in this case by using a large Swedish cohort data set (N = 47472). The one-sample t-test demonstrated a significant difference between the two means, suggesting that H_1 can be accepted.

3.2 Qualitative strand analyses

This section of the chapter will present the data produced from the qualitative strand of the study. More specifically, it will present the themes and subsequent sub-themes that were produced through the reflexive TA framework employed, followed by a narrative account for each theme and subtheme with quotes illustrating these.

Hypothesis 2: Individuals who self-harm and have traits of ASC above clinical cut-off, are likely to have faced specific emotional and social struggles throughout their life. This may be associated with their traits of ASC.

3.2.1 Demographics

Seven participants who had completed the quantitative part of the study and scored 6 or above on the AQ10 were interviewed using a semi-structured schedule (Appendix M). Interviewees were allocated pseudonyms which were then used when sharing extracts from the transcripts. Table 3.14 below outlines the demographics for the participants including their given pseudonyms. The interviewees were all females, representing a predominantly overall female sample. The men and non-binary participants who scored 6 or above on the AQ10 were also contacted and asked to take part in the qualitative stage, however they did not respond hence only female respondents were available for an interview. Respondents were from all the four age categories, making them somewhere between 18 – 65 years old. There were no participants in the study who were aged 65 years old and above.

Table 3.14*Demographics of participants who completed the interviews, N=7.*

Pseudonym	Gender	Age bracket in years
Simone	Female	18-25
Anna	Female	26-35
Sally	Female	46-55
Leila	Female	56-65
Alex	Female	36-45
Lucy	Female	18-25
Emma	Female	26-35

3.2.2 Qualitative strand results

One of the features that distinguishes reflexive TA from other forms of TA, is the acknowledgment that themes under this methodological framework do not emerge but that they are actively constructed by the researcher (Braun & Clarke, 2022). One way of understanding this, is that the interview schedule was designed in a way that themes would not randomly have appeared. Furthermore, the researcher cannot remain completely subjective and unbiased yet within the reflexive TA framework this is viewed as an essential and positive part of the research as long as it is continuously reflected upon.

In Chapter 2, the themes that were initially developed as part of phase 3 of reflexive TA, were illustrated (Table 2.5). They evolved and further developed into the final themes (an additional theme was also added) as the analyses continued and the write up began. Figure 3.5 below outlines the final themes and subthemes. The main thoughts remained the same as those that were developed under phase 3, yet more richness was added to the final themes by adding more sub-themes and changing the labels.

Figure 3.5 also illustrate that there is a subtheme subordinate to three of the four themes. An overarching theme can be described as an umbrella concept that embraces several themes (Braun & Clarke, 2022). It was decided not to use overarching themes as it did not seem appropriate to narrow these findings into one broad idea, mainly as the research was exploring links between two different phenomena. Braun and Clarke (2022) support this decision, arguing that it is also acceptable in TA to just report themes (with no subthemes either). In addition, there is a risk of ‘thinning’ out the data, losing contextual depth by adding too many themes and subthemes. The aim of this phase was to finish with themes (and

potentially overarching and subthemes) which would capture most important and relevant aspects of the data set, as well as addressing the research question. When the process began it was not yet decided whether there would not be any overarching themes or that there definitely would be sub-themes. This was all decided during the process of analysis. The differences between Table 2.5 and Figure 3.5 demonstrate how this was an evolving process, an important part of reflexive TA. Table 3.15 outlines the number of participants who contributed to the development of each theme and sub-theme. It is noteworthy that expect for one theme, all participants contribute to the themes. The one theme which has contribution from six of the participants (rather than all seven), was 'self-harm makes sense when nothing else does'.

Each theme and subtheme have been provided with a narrative account, supported by quotations. Some of the quotations are full quotes and where there was information not relevant to the theme it has been illustrated as [...]. To protect the anonymity of the participants, each quote has been marked with a pseudonym.

Figure 3.5

Final themes and subthemes produced through reflexive TA.

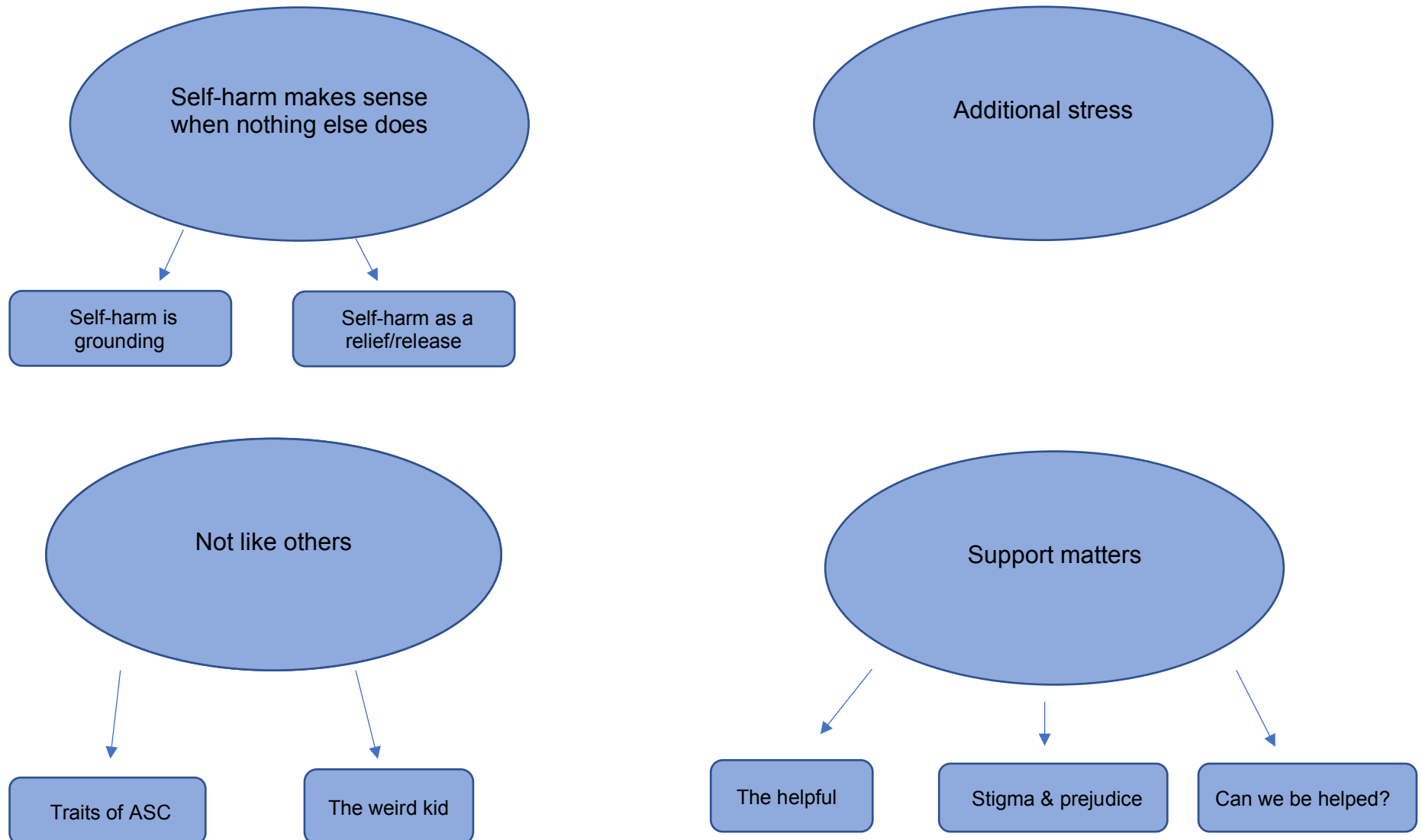


Table 3.15

Specification of how many participants contributed to each theme.

Themes and sub-themes	Number of participants who contributed to the themes and sub-themes
Self-harm makes sense when nothing else does	7
Self-harm is grounding	6
Self-harm as a relief/release	7
Not like others	7
Traits of ASC	7
The weird kid	7
Additional stress	7
Support matters	7
The helpful	7
Stigma & prejudice	4
Can we be helped?	3

3.2.2.1 Narrative accounts of the themes

Below are narrative accounts of each theme and subtheme with extracts from the interview transcripts to support and evidence the analytical claims. The extracts shown for each theme are taken from different transcripts to demonstrate how each participant's story helped the researcher shape the themes, although some themes have more than one extract from a single transcript.

Reflexive TA allows for less rigid and traditional write up however, for the purpose of this thesis, the researcher has treated this more as a traditional 'results section' and thus aimed to keep the 'findings' as descriptive as possible in this chapter. In the discussion chapter (Chapter 4) the researcher has gone into more detail and discussion around the fit between the data and the interpretations. However, due to making use of an explanatory sequential mixed methods design, some literature has been discussed in the results section too. The reason being that the results from Part 2 of the study are intended to inform and explain the results from Part 1 of the study,

hence the literature was at times helpful and necessary to include in order to follow the intended design.

3.2.2.2 Theme one: Self-harm makes sense when nothing else does

Most of the participants had a long-standing history of self-harming. Many also had ongoing or at some point experienced mental health problems, such as anxiety and depression. One could assume that self-harm was a cause of the mental health problems however, the data from the quantitative part of this research suggest that this population is more likely to engage in self-harm compared to the general population regardless of any mental health conditions.

The story told by the participants shaped this theme in two ways. One angle was that self-harm was something good, a relief, something tangible and concrete that they could rely on to ground them and, interestingly, to make them feel alive. One participant described self-harm as a sense of security. Several participants reported that self-harming had prevented them from attempting suicide. However, in Table 3.6 it was noted that 55% of the overall sample had attempted suicide at least once. Previous research also indicates that people who self-harm are more likely to die from suicide compared to people who do not self-harm (DoH, 2017; Hawton et al., 2015; Tyrer, 2004). This is important to note and will be discussed further in Chapter 4.

A contrasting angle to this theme was also picked up. Participants described self-harm as negative and something they should not be doing however, this was predominantly based on other people's belief around it and cultural/societal norms/expectations, rather than contradicting their feelings and sense of self-harm being protective and comforting.

The extracts below were consciously chosen from a range of the participants to avoid the possibility of mainly sharing extracts from participants particularly able to verbalise their thoughts and feelings.

"Once I'd cut myself, almost instantaneously the desire to die stopped." Sally

"I have generalised anxiety disorder and I find that it's [self-harm] very calming for me, in terms of it's, what I see as part of my toolkit. Some people have mindfulness. They have combinations of medication, different things. I see it as a part of my toolkit, so to speak. I hate that phraseology but yes, it's something that I have, that I have access to. It's very

comforting because I know it will stop if I want it to stop. So, it's kind of, it's kind of comforting as well. I know that might not make a lot of sense but it's just something that I really do rely on, and it does provide a sense of security." Anna.

"It became more of a way to deal with everything, not just the emotions of what had happened." Lucy.

"But that probably led me to do it a bit more because, like at least I was physically feeling something." Simone.

3.2.2.2.1 Subtheme to theme one: self-harm is grounding

Interestingly, in this theme participants spoke about self-harm as being a helpful tool. Further to this notion, they specifically made references to self-harm as a grounding experience that was impulsively acted upon.

"I've described self-harm to people before, and it's like the extreme version of grounding. I felt reconnected with being alive, weirdly. It gave me some hope that I wouldn't always feel as bad as I felt." Sally.

"It was just such anger that I just impulsively just went to my room and just literally picked up something and just yes, started to tear at my, it was my thighs initially." Anna.

Sally described self-harm as an extreme version of grounding. Interestingly, she refers to this coping skill linked to feeling invigorating and alive and giving her a new wind of hope. What is clear from Sally's description is that she sees self-harm as something that helps her. As outlined in Chapter 1, self-harm is viewed as a serious health problem globally. One reason is of course the costs. Chapter 1 reported the increased risk of death by suicide for individuals who self-harm. However, perhaps society and particularly the helping profession need to understand the functions of self-harm to implement lasting changes. Perhaps this extreme grounding technique is particularly attractive to individuals who may struggle to communicate their distress or even fully understand the distress themselves. This links to theme one telling us that self-harm makes sense when nothing else does. Anna told us it was an impulse to go and self-harm. What might happen if Anna was supported to stop, pause, and think about her emotions. In clinical practice, clients are encouraged to sit with and 'hold' uncomfortable emotions, typically with the support of

the therapist. This is encouraged to learn to tolerate emotional distress. However, what if Anna, due to her traits of ASC, is unable to access and label these emotions and does not have the tools to talk through her emotions? In the interview, Anna went on to share that after she had self-harmed, she would simply 'snap out' of it and return as if nothing had happened. She would not try and communicate her distress with the person who had upset her to gain a deeper understanding and/or resolve the situation via communication.

3.2.2.2.2 Subtheme to theme one: self-harm as a relief/release

The extracts below were chosen to support and evidence theme one and its second sub-theme. The descriptions of how self-harm felt as a relief and/or release, supported the notion for theme one around self-harm making sense when nothing else does. Lucy described it as a way to shut out any emotional noise and focus purely on the pain and the act of self-harming, indicating a practical rather than cognitive emotional way of dealing with the tension/distress.

"It was just such an immense relief; I could feel something." Sally.

"It's just what I did, and I felt immediately, so much calmer after. I came downstairs and it was as if the normal day resumed, essentially... It really just was what I needed to do, that release but yes. It's kind of embarrassing, really." Anna

"Then I would go, and I would self-harm and it would feel like everything else in my mind would shut off apart from the harming. If I was feeling extremely upset or whatever emotion it was, it felt like everything else would shut off in my head apart from the pain and the feeling of what I was doing. I was hyper focused on that, and I couldn't think about anything else." Lucy.

"It calmed down all the emotions that I was feeling before that and the reason I was doing it. Afterwards it felt like nothing else mattered other than what I was currently doing and the feelings that I was feeling. It's a bit like a release from everything else." Lucy.

Theme one and its subthemes indicate that self-harm is a helpful tool that is used without too much emotion around it. Anna described self-harm as part of her tool kit and compared it very specifically to that of mindfulness, which is frequently recommended particularly for anxiety (NICE, 2020). Perhaps Anna, and others who have traits of ASC, find engaging in mindfulness,

which requires some imagination and cognitive flexibility, unhelpful or difficult to fully engage with to feel beneficial. In contrast, self-harm is immediate, concrete, can be carried out alone with no need for communication and is rather straight forward. Sally described it as feeling *something*. As opposed to feeling nothing or not being able to make sense of emotional turmoil, whether internal or external (or both simultaneously). When communicating one's feelings is too difficult, when reaching out for help seems impossible, self-harm soothes, contains, and grounds them. Self-harm functions like a reliable and reassuring 'reset' button.

3.2.2.3 Theme two: Not like others

The label for this theme, 'not like others', was chosen as it resonated with the initial background research into the topic and the hypothesis that if the participants have traits of ASC, especially on the level that would clinically suggest the person may have ASC, they would have had these traits since they were young children. However, never receiving a formal diagnosis which may have been able to explain some of the differences they felt in relation to their peers and perhaps gain a better understanding, they just felt 'unlike the others'. In addition, many of the codes fitted under this theme although they seemed to breach into two stands and after numerous changes and moving codes around, as well as changing the themes, the theme two ended up with two subthemes.

"I don't know. I have always not been able to fit in. Like other people just naturally, if I have a conversation, then I will analyse it and analyse it for ages after and beat myself up about it. It's more stressful to have a conversation than it isn't to have a conversation".
Alex

"[...] but I need to learn how to do them or how they are played out. There's a lot of learning how to be like everybody else. Even to adulthood, I will still do that." Anna.

"[...] So, I made like a very conscious effort to start fitting in." Simone.

"We would go out and stuff when I was, I had a very, very small group of friends, I found it really difficult to make friends. Like we would go out places and I would just be the quiet one in the corner." Alex.

“I feel like I still struggle with stuff what I struggled with as a child.” Emma (telling researcher that she still feels different to others, now as an adult).

The extracts were chosen to support the hypothesis that participants had felt different to their peers both as children and in adulthood. The following two subthemes will illustrate how this directly point towards having traits of ASC or indirectly through their experiences of being ‘the weird kid’.

3.2.2.3.1 Subtheme to theme two: Traits of ASC

The chosen extracts below illustrate how participants’ experiences could be linked to traits of ASC in addition to the extracts supporting the main theme above. Several extracts were chosen to support this subtheme as their stories are crucial to this research, addressing the research questions and hypotheses, as well as forming new hypotheses for further research which will be expanded upon in Chapter 4.

“I know it’s a basic thing but, even as a result, people perceive you to be quite difficult and quite cold. I would be there, listening to people say, “Oh don’t talk to her because she won’t talk back, or she won’t even look you in the eye.” I count that as something that I’ve definitely had to work at, I suppose. [...] I know it sounds so simple but it’s just so intense, just having to look at someone. It’s definitely been a challenge.” Anna.

“I do need a certain degree of socialisation but only very slight, which was very telling, in terms of talking to other people during the pandemic. People really struggled with loneliness, where I was thriving, in many respects. Absolutely thriving. Yes, kind of strange.” Anna.

“Or people are just like generally talking and joking with each other and I can’t quite follow it.” Simone.

“Yeah it did, and it worked [copying peers] so at the time I was like oh yeah this is great like I, I fit in, I have like a big group of friends, all the really popular people like me, but then it was really difficult to kind of maintain because I always felt like an imposter and they would have conversations that I would have either no interest in or I was like trying to pretend that I knew what you were talking about when I didn’t because we didn’t actually

like the same things. Uhm, so it was quite difficult to maintain fitting in because I was always worried that I would like mess up.” Simone.

“I would get upset if people- even into secondary school, if people said things, then I would overreact I think, I would take it literally.” Leila.

The quotes above are clear examples of how socialising and communication has been extremely difficult for the respondents throughout their lives. There are also good examples of their attempts to camouflage and fit in. Simone’s description of copying and how maintaining this became a struggle, especially as she was not sharing the same interests as her peers, may indicate difficulties with theory of mind, another key element in ASC.

3.2.2.3.2 Subtheme to theme two: The weird kid

This subtheme further supports theme two, ‘not like others’, by emphasising that these individuals have always felt different, making it more plausible that they have ASC as it is a developmental condition. Furthermore, it highlights, as did the above subtheme, potential reasons, and a better understanding of why this population may be more likely to reach for self-harm as a coping tool.

“I’ve never felt like I fit in. It’s almost like I smelt different than everybody else, so they all just took a step back. Do you know what I mean? That little, something really subtle.” Sally.

“I was very, well, I was different, because of the experiences I was going through at the time, but I was always on the outskirts... .. I was always the weird one, you know.” Alex.

“And then probably when I got to about 10 or 11, I started to become more self-conscious about being like the outside weird kind of kid. [...] And they would be like oh she’s actually really weird and different.” Simone.

“Yes. People have always said that I’ve been different, but I don’t know what they mean by that.” Emma.

“I always struggled with my own peers, and I did better with adults.” Sally.

Sally spoke about a subtle difference that was nonetheless noticed by her peers. This could imply that the difference noticed was in fact that she had traits of ASC. These women are high functioning and may have lived with and experienced traits of ASC different to the more traditional beliefs of what ASC looked like (particularly when compared to males with ASC). Hence it was not picked up as ASC, yet the extracts conclude that they did indeed feel different, and this was noticed by their peers too.

3.2.2.4 Theme three: The additional distress

Struggles with our mental health is common, and perhaps in more recent years the rise in awareness, with the aim to reduce stigma and improve outcomes, has seen people reach out for help more. Our society is becoming more accustomed to accepting that most people go through periods where they struggle with their mental health. Figure 3.4 showed that in the total sample of this study (N = 111), nearly 84% (N = 93) had a diagnosis of a mental health disorder or developmental disorder (not including ASC, as this was an exclusion criterion for the analysis). This is substantially higher than the expected 25% of the UK population who will be anticipated to experience some problems with their mental health at some point in their life (Mind, 2017). A national survey reported that 17% of adults in England had a diagnosis of a mental health condition (McManus et al., 2016). For the seven participants who were also interviewed, two reported to not have any mental health or developmental disorder diagnosis, and five reported that they did have such a diagnosis. In Chapter 4 it will be discussed if the possibility of this being particularly high in this population may be due to their traits of ASC and if never receiving a diagnosis for ASC may have further impacted and exacerbated poor mental health. In the above theme it was clear that these women had always felt different, but not understood why. All mental health conditions impact each person in an individual way, however it appears to be categorised in some sense to make appropriate guidelines for best clinical practice. The extracts below indicate that these generalised interventions and approaches may not work very well for this population.

The extracts below support the theme of there being additional stress and difficulties for the interviewees, arguably more so than in the general population. Furthermore, the extracts may tell a story of how the participants deal with such stress.

“No, I remember I started feeling like unusually depressed and which I hadn't really experienced that emotion before this very ‘depressedness’. So that was like totally new

and so that was probably like the big reason behind it [to self-harm], but any like specific, specifics for self-harm I don't know." Simone.

"Like other coping strategies. I was in a really bad place, and it was just a case of the other coping strategies didn't work and didn't really have the effect anymore [...]" Emma.

"I've never ever been off work. Work is a coping strategy for me, so then when I was off work, I just went into a total meltdown and then I just phoned up, then off sick." Emma

"I had trauma years ago, but nothing had ever surfaced really from that, and I'd never talked to anyone about it." Leila.

"It felt like the entire world was the other side of about three metres of Perspex, all around me, and I had no connection with it." Sally.

3.2.2.5 Theme four: Support matters

This theme was shaped as many of the codes were around support. Some indicated very good and helpful support and how that had a positive impact, some indicated unhelpful and damaging 'support' and finally there was an indication of participants' own belief around the ability to being helped. All three subthemes may indicate a feeling of being misunderstood, to the extent where participants may have felt that they were unable to be helped (subtheme: Can we be helped?). Crucially, the helpful support has seemingly had a noteworthy positive impact. What has made these professionals/friends connect better than others? Finally, 'the unhelpful' which seemed a generous coined term for the theme as the stories told came across as very damaging. Why this might have happened and how it could potentially be changed will be discussed further in Chapter 4.

"It felt like, "I'm here if you need me." I think that's the way the majority of professionals and my family and friends have been. It's even, if they don't necessarily understand it themselves, wanting to understand it and wanting to care. Sometimes even just pretending, even if they don't understand it. Pretending that they care is really helpful." Lucy.

“They’re also an organisation that meet. [...], I’ve found that I’ve got a lot of support and I can literally, put down my thoughts. So, what I’ve been going through. Have I, have I not? What I’ve found helpful and they’re a community whereby everybody there either directly engages in self-harming behaviours or let’s say they could be a parent of a child. I feel that it’s a very safe space. There’s no judgement. There’s no insecurity. It’s nothing but positive support.” Anna

3.2.2.5.1 Subtheme to theme four: The helpful

All seven participants talked about support that they had found helpful which included support from friends, family, and professionals.

“Like I wasn’t wanting to specifically make friends, I had been in hospital with her, but I didn’t really, but she was forever knocking on my door. And in the end, we never had a deep relationship, but we’d have a giggle together, you know.” Alex.

“Yes, I felt understood.” Emma.

“The experience at the GP is definitely, when I went to see the nurse, I would 100% ask to go see her again if I ever had any concerns [...] The community mental health team has been really good. They have been quite supportive with it. I’ve never really had a bad experience with them. I’ve also got a therapist and she’s lovely about it. I’ve never had a bad experience.” Lucy.

“I joined support groups online, I’ve got one later and I’ve actually done the training to co-facilitate, so I’m co-facilitating a group later. [...] So that helps, as well the peer support and that’s specifically for self-harm of all different types.” Leila.

“I have some very tenacious friends, who have hung on in there. That has been immensely helpful, both in the past and more recently. A level of acceptance both to do with my general mental health, and to do with any particular characteristics that I have, that actually they still choose to be around me, and they still want to support me. That has been hugely helpful, including an acceptance of the self-harm.” Sally.

3.2.2.5.2 Subtheme to theme four: Can we be helped?

The majority of participants' descriptions around support were positive. When support had not been helpful, participants were more inclined to internalise the reasons for this and question their ability to be helped. Again, this could indicate that help had failed due to their difficulties with communication, such as required in traditional psychotherapy (whether individual or group settings) and they blamed themselves for this failure.

"I had six years psychology and then I had two and a half years in a therapeutic community, an outpatient one. Now, that, I didn't find helpful, because... I don't know. It was group therapy and I just found it difficult really. The psychology, I had to, like I said, six years. But I never really opened up about the abuse and stuff. He tried to get me there, but I never reached the point where I was able to open up, I have always remained detached from it, in a way. "Alex.

"I ended up getting kicked out because I missed loads of sessions." Alex.

"Because I just found it so difficult to go to and... I didn't find it helpful, if I'm honest." Alex.

"So, it's definitely something that has been immensely supportive, but you know, regarding talking to people, it's not something that I would do, I suppose. I would be very reluctant." Anna.

3.2.2.5.3 Subtheme to theme four: Stigma and prejudice

When the participants spoke about unhelpful experiences, it was clear that it was driven by stigma and prejudice. They described that they had been brushed off and in worse cases, directly been told they had self-harmed as a manipulative act to gain attention and/or sympathy. Alex shared how her diagnosis of borderline personality disorder meant this was all that was seen, rather than a person in distress. Another stigmatised response, not just seen when people request help for self-harm but also more generally and frequently seen towards people with a personality disorder. There was a clear indication of their self-harm being treated medically, yet this was judged as a self-inflicted injury not worthy of the same medical attention as those attending for non-self-inflicted injuries.

"Yes. I suppose the one that stands out for me was, quite simply, "People aren't going to feel sorry for you if you do this. You need to find something else." Literally, I was told, "Cutting

yourself isn't going to make people feel sorry for you." Cop on, essentially. Just the blunt and the sharpness of that absolutely shook me because, in my mind, it was like you can't speak to me like that. But yes. It was like. [...] Then, he further, went on and was like, "People are very manipulative, who do this. What is it that you want from people?" All of this was just being thrown at me. I was 19 at the time [...]" Anna.

"But the other times I had went, it just felt like you were brushed off. You weren't as deserving as what everyone else was because it was self-inflicted. Like if a drunk person went in with a really bad hangover and wasn't coping, that sort of a way." Lucy.

"I don't know. I've just always had the borderline diagnosis, and no-one ever looks past that. Do you know what I mean?" Alex.

"No, I saw my own GP. He gave me some pills. He sent me away. There was no follow-up. I could have a repeat prescription if I wanted it. He didn't even want to talk to me again. That was my entire interaction with it. I don't remember seeing him more than the once, but I took them for about six months. I decided I was going to stop taking them because it made me feel horrible."
Sally

"I have had to go and get stitches a couple of times at A&E. That's where the more bad experience with professionals comes in. You're made to feel like you've done it to yourself, so you don't really deserve to get, I know part of that is probably my own mind making me feel that way. Sometimes the looks you get, it's like, "All these people are here because they've not asked for it. Whereas you've asked for it and done it to yourself." You feel a bit more judged when you've got to go somewhere where people are working and trying to get loads of patients done at once. They're more like, "You did this to yourself, why should I help you?" It feels like you're looked at like a drug addict or something. Where, you're doing it to yourself and it's not as worthy of help and you're more brushed off." Lucy.

3.2.3 Summary of qualitative strand findings

Four themes were formed of which three had subthemes. The four themes were 'self-harm makes sense when nothing else does' (with subthemes 'self-harm as grounding' and 'self-harm as a relief/release), 'not like others' (with subthemes 'traits of ASC' and 'the weird kid'), 'additional

stress' and 'support matters' (with subthemes 'the helpful', 'can we be helped?' and 'stigma and prejudice').

The interviews revealed that the seven respondents had struggled with socialisation and communication throughout their lives – key features of ASC. They frequently engaged in camouflaging and copying behaviours.

The researcher remained reflexive throughout the process, including during data collection, analysis and write up, resulting in the findings of the qualitative part evolving and changing over time, to fine tune and share participants stories as effectively as possible.

3.3 Integrating quantitative and qualitative data

The study undertook an explanatory sequential design as outlined in Chapter 2. As such, this section will integrate the quantitative and qualitative data analytically.

The quantitative part of this research hypothesised that individuals with traits of ASC were more likely to self-harm when compared to the general population. This was a one-tailed hypothesis, thus partly the reason for choosing mixed method design to allow for further explanation of the quantitative data and what this means to these individuals. Integration of the qualitative data not only explained the quantitative data but also further validated the findings from Part 1 of the study. In the interviews the participants clearly described that they had always felt different and gave distinct accounts of their experiences, linking it to their traits of ASC, as indicated by the quantitative data.

The qualitative part formed stories, shaped by the participants and the researcher, which were represented as themes. The stories, at least to some extent, revealed why they self-harmed. Their stories also expressed that they felt different to others and this feeling of being different had also been present in childhood (theme two), indicating traits and signs of ASC, linking their stories to the findings from Part 1 of the study. Within the self-harming sample (N=111), 43% scored above clinical cut-off on the AQ10. Their responses clearly indicated traits of ASC, despite the respondents not having a diagnosis of ASC. This was evident in the qualitative part where the participants shared a story of 'always having felt different'. The vast majority of respondents were females which supports the evidence and theories outlined in Chapter 1, suggesting that the

reported male/female ratio to be inaccurate. Chapter 1 evaluated the evidence base suggesting that females tend to camouflage as well as experience traits of ASC differently to males, resulting in mis- or missed diagnosis. The data from Part 1 distinctly fits in with the data produced from Part 2 of the study. This was further supported by the theme 'support matters' with the sub-theme 'can we be helped' where the interviewees felt cut-off and different (due to their traits of ASC) and therefore, at times, struggled with the help offered which made them feel they were 'unhelp-able', making it harder to reach out for help. Questions asked in the interview around support, may help for future clinical implementations and to better understand what is helpful and what is unhelpful for this group whilst noting how this may be very different from other groups, presenting with same or similar issues, such as self-harm. As discussed in Chapter 1, it is very plausible that these individuals, representing a significant proportion of the self-harming population, may need a different approach to deal with their self-harm as well as any other emotional distress they may be experiencing. This was linked with theme three where participants gave accounts of the additional distress they had experienced and how traditional interventions had been unhelpful. Theme one gave examples of how the participants found it difficult to communicate and 'sit with' emotional distress. This explains the findings from Part 1 of the study, suggesting these individuals have high traits of ASC.

The acceptance of the hypothesis from Part 1 of the study was explained by the findings in Part 2. The integration concludes that the themes which emerged from the qualitative strand supports, links, and explains the findings from the quantitative strand.

The final research question asks how findings from Part 1 and Part 2 of the study inform theory and practice. The findings presented in this chapter and implications, as well as suggestions for future research, will be discussed in detail in Chapter 4.

Chapter 4: Discussion

The current research study investigated the prevalence of individuals with clinical traits of ASC in the self-harming population. Based on past literature, the researcher hypothesised that people who self-harm(ed) would have a higher mean AQ10 score compared to the general population and that this difference would be statistically significant. Within the self-harming sample (N=111), 43.24% scored above clinical threshold for ASC and 56.74% scored below. A one sample t-test confirmed that the mean AQ10 score for the total self-harming sample (N=111) was significantly higher to that of the general population $t(110) = 14.699, p = <.001$), indicating a positive association between self-harm and traits of ASC. The hypothesis was based on existing literature, suggesting that people with a confirmed diagnosis of ASC are more likely to self-harm (Cassidy et al., 2018a; Licence et al., 2019).

The sample was then split into two groups: 1) participants who scored below clinical cut off on the AQ10 (less than a score of 6) and 2) participants who scored above clinical cut-off on the AQ10 (a score of 6 or greater). This allowed for regression analysis on additional variables between the groups as well as looking for differences between the groups by carrying out chi-square analyses. These analyses suggested no significant differences between the two groups in the methods used and reasons for self-harm nor whether they reported to feel pain during their self-harm episodes. Regression analysis indicated higher age groups were significantly more likely to score above clinical cut-off on the AQ10 as were individuals who reported to have major depressive disorder and/or social anxiety disorder.

Additionally, the study set out to better understand the experiences of the participants who had clinical traits of ASC. This part of the study was conducted as a qualitative measure through semi-structured interviews, based on a framework of reflexive TA. The hypothesis stated that individuals who self-harmed and had traits of ASC above the clinical cut-off, would report that they had felt different to their peers as children and that these noticeable differences had continued into adulthood. The qualitative process produced four main themes, two of which had two subthemes each and one with three subthemes:

1. Self-harm makes sense when nothing else does
 - Self-harm is grounding
 - Self-harm as a relief/release
2. Not like others

- Traits of ASC
- The weird kid
- 3. The additional distress
- 4. Support matters
 - The helpful
 - Stigma and prejudice
 - Can we be helped

The hypothesis for the qualitative part of the study was confirmed through theme two. Additional themes furthered a deeper and richer meaning for why they were self-harming and what had been particularly helpful, as well as unhelpful, in the support they had received.

Finally, the research aimed to answer how the results from Part 1 of the study informed results from Part 2. The quantitative results indicated a significant increased mean AQ10 score in the sample and the results from the qualitative part of the study clearly explained the quantitative findings. The themes that were developed suggested that these individuals had indeed struggled with signs of ASC yet never really grasped what these differences were about as they were never diagnosed. However, some participants did say that professionals, friends, or family had suggested they may be on the autistic spectrum, yet for whatever reasons, this was not explored further. One participant shared that one mental health professional had categorically stated she was not on the autistic spectrum (without carrying out any ASC assessments), so the individual did not pursue her suspicions of having ASC any further. Integration of the two parts of the study will be further discussed in this chapter. Additionally, the findings will be discussed in context of existing literature, as critically evaluated in Chapter 1. Limitations and strengths will be outlined, as well as implications for clinical practice and more specifically, for counselling psychology. Final reflections will be shared and lastly there will be a section concluding the research.

4.1 Interpretation and discussion of quantitative results

The findings from Part 1 of this study were in line with the existing literature suggesting a positive association between confirmed ASC and self-harm. The present study investigated traits of autism in a non-diagnosed sample who were or had been self-harming.

Many people have suspected ASC and go through life without a diagnosis of ASC, despite being likely to have received one had they been assessed, and this is more likely for those at the higher-functioning end of the spectrum (Baron-Cohen et al., 2005). In addition to research

indicating this, there are many stories published about people whose lives seemed a struggle and they felt they never fit in but did not know why. They shared how they got a diagnosis of ASC in adulthood, which came with its own challenges, and how they generally felt relieved when diagnosed (Leedham et al., 2020). They had spent most of their lives in a confused, misunderstood world and now, with the elucidation of a diagnosis, they could transition from being self-critical to being self-compassionate alongside starting the process of correcting thoughts and beliefs about themselves. Early diagnosis of ASC can give the individual a chance to get appropriate support and a greater understanding of the 'self' including one's feelings (or lack thereof) and behaviours. Receiving a diagnosis late or never can have serious consequences for people's emotional, physical, and mental well-being (Mandy et al., 2022). Research suggests that individuals with ASC are more at risk of feeling depressed, engage in self-harm, have co-morbid mental health problems and are at higher risk of dying by suicide (Hedley & Uljarevic, 2018). This was consistent with the findings in the current study where 89% of the sample reported to have a mental health condition. Moreover, research has consistently indicated a strong link between self-harm and suicidal thoughts (DoH, 2017; Hawton et al., 2015; Geulayov et al., 2019; Tyrer, 2004). This current research has highlighted that there is a significantly increased prevalence of people with clinical traits of ASC within the self-harming population. The precise cause for the correlation between ASC traits and suicide risk is not yet definitive, but the link between the two are undeniable. Suicide is understood as a preventable cause of death; therefore, we must use the understanding of this link to make changes. As a society we have a responsibility to identify traits of ASC in individuals in order to prevent self-harm and offer this group better overall mental health outcomes and quality of life. This does not necessarily mean that everyone would need, nor benefit from a formal diagnosis, yet an awareness of it is crucial, particularly when these individuals reach out for help, for example when presenting to hospital for self-harm.

Having worked clinically with both children and adults with ASC across the continuum for several years, the researcher was attuned to picking up on traits of ASC in people. Her views were at the time very much shaped by her NHS supervisors which supported pursuing an assessment for ASC in adults only where this would have a direct positive impact/change for the individual which outweighed any potential negative consequences of a diagnosis, e.g., stigma, unconscious bias, difficulties with education/job etc as well as consciously taking cost and time of the NHS into account. Of course, those same areas where one might experience a negative impact due to an ASC diagnosis, it could also provide additional support, funding and understanding (importantly

this includes self-understanding). Perhaps it should be entirely down to the individual whether they would like to be assessed for ASC (assuming they indicate traits of ASC) though the cost to the NHS does not currently allow for this nor does the available resources. Waitlists for autism assessments with CAHMS are long. Crane et al. (2015) reported that from the time a parent raised concern about their child to diagnosis (in the UK), took an average of 3.5 years. For adults, services offering autism assessments are scarce and where possible, wait times can be longer than those seen in CAMHS services. However, a campaign steered by the National Autistic Society led to the Autism ACT of 2009 which made provision of adult autism diagnostic services a statutory duty of local authorities (Autism Act, 2009). Yet long waiting lists remain which means clinicians within the NHS may be cautious in referring for a full ASC assessment for adults. However, what if living with ASC and never receiving a diagnosis not only limits the specialised support and self-understanding but that it can have very serious consequences? The following sections will discuss factors that might have impacted the increased mean AQ10 scores in the current sample. This will be evaluated in relation to the current literature.

The current study questionnaire asked participants about any mental health conditions they might have. Nearly 84% of the total sample (n=111) reported to have at least one mental health condition. When the group was split into 'above AQ10 cut-off' and 'below AQ10 cut-off', there were no significant differences between the conditions they reported expect for two conditions, namely social anxiety disorder and major depressive disorder. This is not surprising as finding social situations difficult/uncomfortable is a hallmark trait of ASC (Allison et al., 2017; Bishop et al., 2012) Moreover, previous research has indicated social anxiety to commonly re-occur with ASC and that this was due to socio-communication impairments, or their impact on social experiences, which then contribute to the development of social anxiety (Spain et al., 2018). These findings further validate the use of AQ10 as a suitable screening tool for ASC. This was consistent with findings reported by Cassidy et al. (2018a) as discussed in Chapter 1.

Logistic regression models were run to account for additional factors and variables. The results revealed that participants in the older age groups were more likely to be in the group with clinically high traits of ASC. This could theoretically be explained by them having lived for most years with this unknown status of possessing high traits of ASC which are therefore poorly understood, leading to a poor understanding of the self and a poor understanding of behaviours by others, including the helping profession. Moreover, it may suggest that these individuals were

children in an era where ASC had less awareness and was therefore less frequently diagnosed (Gillberg et al., 2018). However, more research is needed to further explain if age is indeed associated with high traits of ASC. The logistic regression analyses also indicated that those who were still self-harming when the data was collected, had a higher odd ratio of scoring above clinical cut-off on the AQ10 which supports the theory that these individuals are not getting the help they need – perhaps because help received has not been tailor to their needs and taking into account their traits of ASC.

4.1.1 Functions of self-harm

Participants were asked about reasons for self-harming and their responses have been recorded in Table 3.13 (Chapter 3), split into two groups: 'above AQ10 cut-off' and 'below AQ10 cut-off'. Participants could respond 'not relevant', 'somewhat relevant', and 'very relevant' to how each optional reason for self-harm related to them. They were also given the opportunity to list any reasons that had not been mentioned in the options offered by the questionnaire. Additional reasons for self-harm were rather descriptive: 'feeling alone or different', 'to feel like my body is my own', 'as a reward for getting through something difficult', 'to be able to cry and feel emotion', 'escape from reality' and 'a sexual high'. The remaining 'other' reasons given could have fitted in one of the optional boxes. Crosstabs were run to analyse chi-square significance for each option between the two groups. There were no significant differences between the group who scored above clinical cut-off on the AQ10 and those who scored below, in their reasons for self-harm. However, the data still provided important information about participants reasons for self-harm. Releasing built up emotional pressure is frequently reported in literature researching self-harm (Klonsky, 2007; McManus, 2019; Nock & Prinstein, 2004). This was also true for the sample in the current study with nearly 89% of individuals with clinical traits of ASC reporting this as 'very relevant' and nearly 94% in the group below the clinical threshold for ASC.

Despite not finding any significant difference between the two groups in their reported reasons for self-harm, there were nonetheless some differences which were noteworthy. 'Giving myself a way to care for myself (by attending to the wound)' was reportedly 'not relevant' for 73% of the group below AQ10 cut-off and 59% in the group that scored above cut-off. This indicated that the groups with higher traits of ASC were more likely to self-harm to care for oneself (despite this difference not being significant). Interestingly, when asked if they self-harmed to see if they could stand the pain/to generate excitement and exhilaration/ensuring that they are self-sufficient, the

above cut-off group were again more inclined to report this as 'somewhat relevant' or 'very relevant' compared to those who scored below cut-off. Those options were more focussed on external and physical reasons for self-harm which may indicate that people with traits of ASC experience the functions of self-harm differently to those who do not have high traits of ASC. This highlights the need to ensure this group are offered appropriate support which is sensitive to their traits of ASC.

In contrast to myths about why people self-harm, such as for attention or to get back at someone (Samaritans, 2022 – Self-harm myths and facts; Staniland et al., 2022) the results from this study found this to not be the case, across the sample. In fact, the overwhelming majority responded 'not relevant' to the reason 'trying to hurt someone close to me', 'getting revenge against others', 'fitting in with others' – suggesting that for this sample, self-harming had very little to do with other people or gaining sympathy/attention. Even to the reason 'seeking care or help from others', majority in both groups responded, 'not relevant' (80% in the above AQ10 cut-off group and 73% in the below AQ10 cut-off group). The findings in this study, which are consistent with previous findings, are important to challenge negative views about self-harm and to improve the care for the individuals who self-harm. Saunders and colleagues (2012) found that attitudes of staff at general hospitals, especially doctors, were largely negative, particularly towards individuals who were repeat self-harmers. Staffs' attitudes are likely to influence their clinical practice which consequently may impact patients experience and outcome. Add to this equation, individuals who also have high, unidentified traits of ASC, and it could have further serious consequences for future help-seeking behaviours, beliefs about the self and outcomes. Previous research has indicated that people with ASC are also more likely to experience barriers to accessing specialised psychological interventions, largely due to therapists' lack of knowledge and/or willingness to tailor the work to be suitable for individuals with ASC (Adams & Young, 2021). This is unacceptable and is likely to act as an even greater barrier for self-harming individuals with unidentified traits of ASC.

Most frequently chosen functions of self-harm (on the ISAS scale) from the overall current sample were in keeping with those reported in Chapter 1 in individuals with ASC (Moseley, 2019). In the current study, the most frequently reported functions of self-harm, reported as 'very relevant', were: to calm myself, responding to suicidal thoughts without attempting suicide, avoiding the impulse to attempt suicide, causing pain to stop feeling numb, releasing internally build up

emotional pressure, reacting to feeling unhappy or disgusted with myself, reducing overwhelming emotions, trying to feel something (as opposed to nothing) even if it is physical pain and punishing myself. It is clear from those responses, that for this sample, self-harm was not about attention. This is consistent with the findings by Moseley and colleagues (2019) who also reported that self-harm served as a function to manage emotional distress rather than seek out attention/sympathy. However, the most frequent reported functions of self-harm in this study, did not entirely match up with the functions of self-harm suggested by Nock (2009) as outlined in Chapter 1. One possible explanation for this may be that Nock's (2009) hypothesised theories were not connected to the ISAS and likewise, the ISAS items were not developed based on those theories of functions of self-harm. Certainly, some overlap, especially 'managing emotional distress' which several items on the ISAS fall under. This highlights the importance of the individuals' experience of self-harm and how they describe the functions it serves, understanding that this can differ in individuals with traits of ASC.

4.1.2 Male/female ratio

There was a discrepancy between the gender in the current sample as the current sample were predominantly made up of females (89.2%). The remaining 10.8% were equally split between males and non-binary/third genders. Past research has found the prevalence for self-harm to be significantly higher in females (NICE, 2020) although previous findings suggested no difference in life-time self-harm rates between males and females in the general population (Cassidy et al., 2018a). Cassidy and colleagues did however find a significant difference in life-time self-harm rates between male and female individuals with ASC, reporting females to be much more likely to engage in self-harm at some point in their lives. Thus, the gender discrepancy in the current sample is not a surprise although there appears to be a rather large discrepancy. One explanation could be that the sample was predominantly recruited through online self-harm groups, and it may be that females are more likely to seek out such support. A search on the internet also suggested that there were several self-harm support groups aimed exclusively for women and girls whereas the researcher did not come across a single website dedicated specifically for males. In addition to suggest why the current sample was mainly females, it may further indicate a gap in the field regarding support for self-harming males.

The literature review evaluated research on how diagnosis of ASC, particularly in females, go missed or are misdiagnosed which was supported by the findings in the current study. The

evidence suggested that professionals are unfamiliar with ASC symptomology in females, particularly in high functioning females or individuals without intellectual disabilities (Ratto et al., 2018; Tint & Weiss, 2018).

Additionally, the gender discrepancy in the current sample may be supported by the camouflaging theory and the knowledge that females are more likely to be undiagnosed and misdiagnosed. Perhaps there were more females in the current sample, who also had high traits of ASC, because they find face-to-face interactions difficult, and they have no other support that understand their specific needs and differences. Needs and differences that they do not even understand themselves. This was certainly indicative in the qualitative results where participants gave examples of copying behaviours and strategies which they had been engaging in both as children and adults. With the knowledge of ASC, one can seek out appropriate support and work on better understanding the differences they experience. Without this knowledge, there is a risk that these individuals internalise their struggles and view themselves as 'the problem'. This too was articulated in the qualitative interviews when participants described their camouflaging behaviours and their inability to benefit from some of the traditional interventions offered, such as talking therapies.

4.2 Interpretation and discussion of qualitative results

The data collected from the first part of the study was essential to identify this group of individuals who are self-harming and have clinical traits of ASC. The results demonstrated that people with traits of ASC form a significant part of the self-harming population. This is crucial knowledge for clinicians working with individuals who self-harm and with individuals with ASC in order to prevent/end self-harm and other risks. What the quantitative results do not inform about, is why this is the case. Strategies on how to best support the people identified in study, cannot be successfully implemented without an understanding of their experiences. The qualitative part of the study confirmed the hypothesis that the individuals who scored above clinical cut-off for ASC, had likely always had traits of ASC and this was evident in their experiences both as children and now in their adult lives. Moreover, the second part of the study, informed by the quantitative results, allowed for a deeper and richer understanding of why they self-harmed and what support had been particularly helpful or indeed unhelpful. This information is necessary to better understand and explain the quantitative data and to implement long-term, individualised support.

4.2.1 Missed and misdiagnosis

More adults are getting assessed for ASC due to increased awareness and understanding of how crucial such a diagnosis might be. This increase may also be explained by the rise in awareness and growth of research around mis- and missed diagnosis, particularly in females as discussed in the preceding section. The UK has enabled far greater access for adult ASC assessments (almost 93% by 2019 compared to less than 50% in 2009 (Russell et al., 2022)). Despite this, the section above described the ongoing issues in getting a timely assessment, both for children and adults. The quantitative results from the present study revealed that 43.24% of the total sample scored above clinical cut-off for ASC. This does not necessarily mean that they would all have been diagnosed with ASC had they had a full assessment. However, Allison et al. (2012) found a significant difference in mean AQ10 scores between individuals with confirmed ASC and a control sample, indicating a strong, reliable link between the AQ10 and ASC. Moreover, the qualitative results from the present study indicated that these individuals had felt different throughout their lives and gave many examples which indicated traits of ASC, consistent with their scores on the AQ10, linking the findings of the two parts of the study. The following sections will evaluate the qualitative results from the present study, explaining the findings from the quantitative part, in relation to the current evidence base and the association of this to self-harm, as reported in Part 1 of the study.

4.2.2 Theme one: self-harm makes sense when nothing else does

The first theme that developed was 'self-harm makes sense when nothing else does'. This theme had two subthemes: 'self-harm is grounding' and 'self-harm as a relief/release'. Theme one and its subthemes were in keeping with previous research reporting people's reasons and understanding of self-harm (Moseley et al., 2019). It is noteworthy to point out, that the past literature suggested very few individuals who reported self-harm as a way of getting back at someone or for attention (Moseley et al., 2019) which was also the case for the sample in this study. This data does not match up with reported attitudes of healthcare professionals, believing that these self-inflicted wounds are done for attention (Masuku et al., 2019). How such beliefs impact self-harming individuals with traits of ASC will be discussed in a section below, integrating theme three (support matters) and past research. In the present study, what sets theme one apart from the likeness of other self-harming individuals is that it is closely linked to theme two: 'not like others'. This was clearly present in the interviews with the seven individuals who scored 6 or above on the AQ10.

4.2.3 Theme two: not like others

Theme two, 'not like others', had two subthemes: 'traits of ASC' and 'the weird kid'. Interviewees gave clear examples of how they had always felt like they did not fit in as well as clear examples that would indicate traits of ASC. Within theme two, the difficulties around socialising were evident. This was particularly reiterated from their adult lives where they were perhaps more aware of societal norms and expectations, such as socialising with colleagues, yet described it as intense and unpleasant. Furthermore, having conversations with people was described as exhausting and inducing anxiety. Theme one and two and the subthemes, integrate Part 1 and 2 of the study. The qualitative data, describing participants experiences, as captured in the themes, explains the high mean AQ10 score for the sample. In turn, given the significantly increased mean AQ10 scores, their reported experiences were not a surprise.

4.2.4 Theme three: additional distress

The theme 'additional distress' emerged as participants described their struggles with co-morbidities. Research reviewed in Chapter 1 gave an indication of how individuals with ASC are likely to have at least one co-morbid mental health disorder. In keeping with such findings, the current study revealed that 84% of the sample reported at least one mental health disorder which is substantially higher than expected in the overall UK population. However, co-morbid psychiatric disorders are significantly higher in individuals with confirmed ASC compared to the general population (Gjevik et al., 2011; Joshi et al., 2013), hence the findings from the current study were once again not surprising when the sample's high traits of ASC were taken into consideration. These individuals' experiences of mental health conditions, such as anxiety or low mood, may be very different to those without traits of ASC. This would suggest that a different approach on how best to support these individuals may be different than 'best' practice. It may be these individuals need interventions that are not recommended in NICE guidelines. Yet, this cannot be implemented whilst clients and clinicians are not considering the existing traits of ASC, regardless of diagnostic status, which will likely impact help seeking behaviours. The same applies when individuals with unknown traits of ASC seek help for self-harm. This matter was captured in theme four, 'support matters'.

4.2.5 Theme four: support matters

In all the interviews, participants' experiences of the support they had received (or lack of) was spoken about. A subtheme to theme four summarised participants' positive experiences around

support received as 'the helpful'. This support was shown and given by friends, family, and professionals. It was encouraging to hear reports of helpful support as shown in the extracts in Chapter 3, supporting this subtheme. Another subtheme was framed 'can we be helped?'. This appeared evident when help had been offered yet not been successful and the individuals had subsequently felt this was their fault and questioned if they could be helped. One participant explained she had been kicked out of a group as she had missed so many sessions. She had missed the sessions as she found it very intense and completely out of her comfort zone to be in a group situation, let alone one where you are meant to make yourself vulnerable and understand others' emotions and vulnerabilities. Perhaps her high traits of ASC made her particularly unsuitable for this intervention. Unfortunately, participants expressed a feeling of not being helpable, internalising their struggles with the help offered. This could put individuals in a worse position than before they were offered support. In an extract by Anna, she shared that she would be very reluctant to talk to people (she referred to talking therapy) suggesting that traditional interventions with a strong evidence base for successful treatment outcome, may not be best suited for this group. Moreover, when someone presents to hospital for self-harm, they are likely to be asked a series of questions as part of the assessment procedure. Many of these questions are open-ended which might be incredibly difficult for individuals with traits of ASC to respond to, especially considering they present whilst in crisis, and given their traits of ASC as indicated by the quantitative results and reported in theme two of the qualitative part.

4.3 Research limitations

Geographical information about the participants was not collected and this could have strengthened particularly the quantitative part of the study. Logistical regression could have been carried out to see if there was a relationship between AQ10 scores, self-harm behaviours and geographical location. This was particularly important as the survey was online and all the interviews were done online which meant it could have included participants from all over the world. The same applies for other data which was not collected, such as ethnicity, cultural backgrounds, religion, education, and employment status etc. However, this data has been collected in numerous other studies which investigated a relationship between self-harm, ASC, and these additional factors, as reported in Chapter 1. Hence, the researcher wanted to stay focussed on the hypotheses and specific research questions for this study.

Whilst conducting research online ensured a strong sense of confidentiality and anonymity it also meant that data was collected in an uncontrolled environment. The researcher had initially planned to collect data via recruitment of participants as part of large NIHR funded study also researching self-harm. Participants were recruited from A&E departments all over England and as part of the questionnaires they were to fill in, there would be the AQ10 that was going to be collected for this current study. Follow-up interviews were to be face to face where possible however due to the global pandemic, Covid-19, amendments had to be made to continue the research during those challenging times. The larger research project had to be put on hold as one could no longer carry out research within the NHS if it was not directly related to Covid-19. Due to time constraints of the doctoral course, the researcher decided to change plans and applied for her own ethics approval through City, University of London, to continue with the project and data collection on her own and this was only possible by conducting all aspects of the research online. There were clear benefits for this strategy too, one being the ease of collecting a relatively large sample in a short time. Another being the confidentiality and anonymity this offered, as mentioned above.

The sample was predominantly made up of females and this was a limitation as much as a strength. The researcher had not anticipated such a gender bias in the sample however, reflecting on the literature presented in Chapter 1 regarding missed and misdiagnoses in females as well as females with traits of ASC frequently engaging in camouflaging behaviours, the bias found in this sample is important knowledge and it further supports the theories and findings in the existing evidence base. Nonetheless, the findings would have been more generalisable had the sample had a more even gender split.

The study made use of a large Swedish cohort study to compare the mean AQ10 scores of the general population. This was not ideal, despite the fact that a UK sample may not have been more representative of the sample in the current study as participants may have been from all parts of the World. However, this limitation to the comparison sample was also a strength of the study which will be discussed in the section below.

4.4 Research strengths

Despite the limitations indicated above, the current study has several strengths which makes important contributions to the field of psychology and mental health as well as general health settings such as A&E and GP surgeries and equally important to the individuals this research impacts, our society, and communities as a whole. This study has highlighted that the self-harming population is significantly more likely to possess traits of ASC compared to the general population and many of these individuals fall in the clinical and diagnostic range for ASC.

Additionally, as far as the author is aware, this is the only study that investigates the prevalence of traits of ASC within the self-harming population. Moreover, the current study had a robust sample size comparatively to other published studies.

An additional strength of the current study is the mixed methods design, combining qualitative data. This is scarce in the literature, yet much needed to aid and further an understanding of the quantitative results. Without understanding why this group is at such an increased risk of self-harm (and suicide) we cannot put in place preventative strategies for self-harm and overall deterioration of mental health.

The general population sample used as a comparison for the AQ10 scores was discussed as a limitation above although it was also a strength in this study. One of that study's key advantages was the ability to use the entire Swedish population as a study basis thanks to the utilisation of longitudinal data from national registers. The size of the sample minimised risk of selection bias, recollection bias, or a reluctance to disclose sensitive information.

4.5 Implications for clinical practice

Based on the findings of this current research, practitioners should pay close attention to traits of ASC in individuals who present with self-harm and/or suicidal ideations/attempts. Moreover, practitioners should attend carefully to individuals with confirmed diagnosis of ASC and look out for risks of self-harm and potential suicide ideations. Clinicians have long known that people with ASC typically need interventions tailored to their specific, individual needs (Adams et al., 2021). Specialist learning disability (LD) teams make use of material adapted to fit the needs of these individuals. Whilst the researcher of this study was working clinically with people with ASC in a

LD team, formulation and interventions had to be creative including flexible thinking and working, in collaboration with the clients. For example, this could mean different seating arrangement when in therapy to avoid direct eye contact as is common with more traditional seating arrangements in therapy. With one client, the researcher conducted all therapy sessions whilst her and her client were walking outside. The intensity of being two people in a small room, communicating with each other, was too anxiety provoking for the client. CBT materials (and other therapy materials) was often adapted to fit the specific needs of this group, for example by eliminating abstract language or using questions requiring yes/no answers rather than open-ended questions. There are numerous ways that clinicians can adapt their ways of working with people with ASC, also depending on the individual's severity of ASC and specific needs. What about the people who do not know they have traits of ASC? How do we ensure they are receiving the appropriate interventions? Clinicians should look out for traits of ASC in people and suggest/consider alternative ways of working and interacting with people who have traits of ASC. This could prevent them from not seeking help again and work positively and collaboratively towards better mental health.

The findings of the present study could influence policies and training around self-harm and ASC. Training could be provided for A&E staff and mental health practitioners to identify traits of ASC in individuals presenting for self-harm or attempted suicide. This could be done by administering the AQ10. Due to its short length (ten items) this appears to be the most likely tool to be used in busy settings like A&E. Additionally, despite having received some recent criticism around its reliability on certain items within the scale, research has consistently indicated that the AQ10 is a reliable and valid tool to screen for ASC (Allison et al., 2012). Moreover, this is also why it is one of the recommended scales by NICE, (CG142, 2012) to screen for ASC.

This research is particularly important for counselling and clinical psychologists who are likely to work with some clients who we believe, in our clinical judgement, to have traits of ASC. Do we weight (enough) importance to those traits with regards to risk, our clinical outcomes, and the future prospects for those individuals? There is no research investigating this and, as emerging research is suggesting a strong correlation between an ASC diagnosis and suicide risk, as well as increased risk of suicide in people with ASC traits (but no diagnosis), we should question how this emerging research is (or should be) guiding our clinical practice. Clinicians treating individuals with ASC should be vigilant for self-harm and suicidal behaviour and consider

treatment of psychiatric comorbidity. Results from this study suggests clinicians should also actively look out for traits of ASC in the self-harming population as a preventative measure.

4.6 Future research suggestions

More empirical evidence is needed to investigate the prevalence of individuals with traits of ASC and how this impacts their life in general. Research should seek out to explore specifically how a diagnosis could have a direct positive (or negative) consequence for this group and focussing on their views and experiences by including qualitative data. As this research indicated an increased risk of self-harm for this group, experimental research offering individuals who seek help for self-harm and score above cut-off on the AQ10, might explore if a specifically tailored neurodivergent sensitive treatment group would produce different outcomes (short-term and long-term) compared to a control group with usual treatment options.

Exploring psychologists' (and other mental health professionals') attitudes towards a diagnosis of ASC (in childhood and adulthood) and if they consider recognising traits of ASC in non-diagnosed individuals important, would be of great interest to research. Unless individuals consider themselves to have traits of ASC and contemplate pursuing an assessment through private routes, the decision is in the hands of the professionals whose hands are tied by policy makers as well as their own beliefs. This too requires that individuals can fund such a route themselves. The current study had initially considered interviewing counselling and clinical psychologists regarding beliefs about the current self-harming sample with traits of ASC and their attitudes in general to refer individuals for a full ASC assessment.

As discussed above, several studies have reported that there is an elevated rate of self-harm in the ASC population. However, many additional factors could explain the elevated rate of self-harm and in addition, it depends how self-harm is defined within this specific population. For example, head-banging is very common in individuals with ASC who also have a learning disability and engage in self-injurious behaviour (Malhi & Sankhyan, 2020; Steinfeldt-Kristensen et al., 2020). As such it may be preferable to investigate self-harm in ASC by looking at intergroup differences such as intellectual disabilities and whether the self-injurious behaviour is viewed as self-harm by the individuals or by society.

4.7 Final reflections

Upon the beginning of this research, when the research questions and hypotheses were still being framed, the researcher anticipated that the mean AQ10 score would be somewhat higher in self-harming sample compared to the general population as it was expected there would be a proportion within the self-harming sample who would score above clinical cut-off. However, the mean difference as well as the large proportion who scored above clinical cut-off, was unexpected.

We cannot for sure know how many people who self-harm may have traits of ASC yet the findings from the present study give an indication that this may be of a large magnitude. There is clearly also a possibility that those presenting with traits of ASC do not need a diagnosis to function well in their daily lives. However, knowing about these traits, and their potential significance as a predictor of self-harm, suicidal ideations, and suicide, could aid professionals and the individuals to identify the risk of suicide and put in place timely and appropriate interventions to manage this risk. This was further supported by the qualitative strand of the study, revealing that self-harming individuals with traits of ASC were struggling socially and with mental health problems and this had been the case throughout their lives

This is a difficult dilemma for counselling psychology in general and for the researcher personally, but one that must be addressed and debated openly. Besides from the restraints of policies and costs, there is a danger that our responsibilities as counselling psychologists become entangled with our humanistic philosophies and beliefs which can become generalised across our client groups. The researcher entered this profession feeling proud to view her clients holistically, as people and not labels. Some work settings even advised not to read the notes before seeing clients so we that we would not be unconsciously biased and judgemental, but to instead welcome just the person, with no labels, into our therapy space. This approach remains one of the main reasons why the researcher has chosen to become a counselling psychologist. However, the current research questions led her to wonder if more people with ASC traits received a formal diagnosis of ASC at an earlier point in their lives could we be saving those lives? Could this early identification allow individuals, carers, and professionals to risk assess more appropriately and plan timely interventions to mitigate the increased risk of self-harm? Could such interventions and philosophical beliefs reduce death by suicide in this group? Exploring traits of autism in the general population and whether these traits indicate an increased risk of suicide is an under-researched and important area to further research (Pelton & Cassidy,

2017), as is research around psychologists' attitudes towards ASC diagnoses and ASC traits and how much significance they would give these factors when assessing risk of suicide.

In the United States it is suggested by the Centre for Disease Control and Prevention that an autism assessment should routinely be carried out for all children at 18 and 24 months of age despite the final decision by the US task force, not recommending universal screening in children with no symptoms of ASC (Centre for Disease Control and Prevention, CDP, 2016). This philosophy and methods are already used as standard practices in some services, for example in some eating disorder services (Adamson et al., 2021). Revealing the scale of unidentified/undiagnosed ASC within the self-harming population in this study, suggest that perhaps such routine screenings of ASC could be helpful or at best, saving lives. This has been a thought-provoking reflection for the researcher of this study, challenging her previously held beliefs around diagnostic labelling. Yet, carrying out this research, particularly hearing first-hand accounts from individuals who described feeling they had never fitted in and not understood why, has changed her view around diagnoses, particularly within the area of neurodiversity.

Autistic individuals can find open ended questions hard. In hindsight, the questions in the semi-structured interview were also open-ended. Surprisingly, the conversations flowed easily. Perhaps this was because the participants were not in a crisis at the time of the interview. Participants may also have felt empowered by choosing to take part in research which they had felt impacted by in so many ways, all their lives. Additionally, participants were aware that they study was exploring links between self-harm and ASC. Perhaps they felt a connection, a hope that they would be heard, and they would not need to copy, hide away or camouflage as part of this study. Perhaps the interviews flowed as it felt like a relief for them.

4.7 Conclusion

The quantitative part of the study hypothesised that individuals without a diagnosis of ASC and who self-harmed, or had in the past, would have a significantly higher mean AQ10 score compared to the general population. Results from Part 1 of the study confirmed this hypothesised positive relationship between self-harm and traits of ASC through a one-sample t-test. In total, 43.24% of the 111 self-harming participants (or who had self-harmed in the past) were found to have traits of ASC above clinical cut-off. Qualitative data collection and analysis based on the framework of reflexive TA, confirmed the hypothesis that these individuals had felt different

throughout their lives as a consequence of having high traits of ASC. Thus, the quantitative results were explained by the qualitative results.

Supported by past literature outlining the difficulties individuals with (confirmed) ASC experience, as reviewed in Chapter 1, individuals with traits of ASC may encounter the following barriers and difficulties: access to services, difficulties engaging with the support offered, mental health struggles and generally poorer social and functional outcomes in life.

Identifying these individuals to offer appropriate support and interventions may be a crucial next step. This may require a shift in philosophical beliefs amongst mental health workers, particularly counselling and clinical psychologists as they are often the professionals to decide upon and carry out ASC assessments. Additionally, training in both self-harm and ASC across health professions could be highly beneficial to improve care and reduce self-harm behaviours, suicidal ideation, suicide attempts and completed suicide.

5. References

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6. Appendices

Appendix A: Ethics approval email

Dear Cherie

Reference: ETH1920-1889

Project title: Exploring the link between self-harm and autistic traits – a mixed methods design and analysis

Start date: 8 Feb 2021

End date: 30 Sep 2022

I am writing to you to confirm that the research proposal detailed above has been granted formal approval from the Psychology committee: medium risk. The Committee's response is based on the protocol described in the application form and supporting documentation. Approval has been given for the submitted application only and the research must be conducted accordingly. You are now free to start recruitment.

The approval was given with the following conditions:

- state more explicitly on the consent form how long contact details will be held (e.g., these will be held for 6 months or until data analysis or the end of the study)
- the debrief states 'Self-harm is the biggest predictor for suicide – we feel these are unnecessary deaths that might be prevented.' Please add a brief sentence how this study or participation in this study will help with the prevention of further deaths.

Please ensure that you are familiar with [City's Framework for Good Practice in Research](#) and any appropriate Departmental/School guidelines, as well as applicable external relevant policies.

Please note the following:

Project amendments/extension

You will need to submit an amendment or request an extension if you wish to make any of the following changes to your research project:

- Change or add a new category of participants;

- Change or add researchers involved in the project, including PI and supervisor;
- Change to the sponsorship/collaboration;
- Add a new or change a territory for international projects;
- Change the procedures undertaken by participants, including any change relating to the safety or physical or mental integrity of research participants, or to the risk/benefit assessment for the project or collecting additional types of data from research participants;
- Change the design and/or methodology of the study, including changing or adding a new research method and/or research instrument;
- Change project documentation such as protocol, participant information sheets, consent forms, questionnaires, letters of invitation, information sheets for relatives or carers;
- Change to the insurance or indemnity arrangements for the project;
- Change the end date of the project.

Adverse events or untoward incidents

You will need to submit an Adverse Events or Untoward Incidents report in the event of any of the following:

- a) Adverse events
- b) Breaches of confidentiality
- c) Safeguarding issues relating to children or vulnerable adults
- d) Incidents that affect the personal safety of a participant or researcher

Issues a) and b) should be reported as soon as possible and no later than five days after the event. Issues c) and d) should be reported immediately. Where appropriate, the researcher should also report adverse events to other relevant institutions, such as the police or social services.

Should you have any further queries relating to this matter, please do not hesitate to contact me. On behalf of the Psychology committee: medium risk, I do hope that the project meets with success.



Psychology committee: medium risk

City, University of London

Appendix B: Participant information sheet – quantitative part

Participant Information Sheet

Exploring the link between self-harm and autistic traits – a mixed methods design and analysis.

Researcher: Cherie Morgan

REC reference number: ETH1920-1889

We would like to invite you to take part in a research study which is being undertaken as part of the Professional Doctorate in Counselling Psychology course at City, University of London. Before you decide to take part could, it is important for you to understand why the research is being done and what it will involve. You can talk to others (friends or family) about the study if you wish. Take time to decide whether or not you wish to take part. Please ask if anything is not clear.

Why is this research being carried out?

This research will evaluate if people with traits of autistic spectrum conditions (ASC) are more likely to self-harm. Having autistic traits may mean that you on some points do things or feel similarly to people with ASC. This does not necessarily mean you have ASC. It is very important to understand that the study nor the questionnaire does not diagnose autism. The AQ(10) questionnaire is purely a screening tool.

Do I have to take part?

You do not have to take part. You are free to decide not to take part or to drop out at any time. If you decide not to take part, or drop out, this will not affect your medical care or legal rights.

What will my participation in the study involve?

If you decide to take part you will be asked to fill in some questionnaires online which will take about 10-20 minutes. Some of the questions will be asking you things that can help us identify if you have traits of ASC. Most of the questions will be around your self-harm experiences. All your data will be securely stored and not linked to your name. As we may email you later to invite you for a short interview, we request permission to keep your contact details until the interviews are completed. You may not be selected for an interview as we only need a small number for this part. If you do get selected for an interview, you can choose not to take part.

Will my participation in the study be kept confidential?

Yes, all information that you provide will be held as confidential and your name and any other personal information will not be saved with your answers on the questionnaire. All Personal Data will be processed in accordance with the Data Protection Act 2018 and the General Data Protection Regulations (GDPR). City, University of London is the data controller for the personal data collected for this research project. If you have any data protection concerns about this research project, please contact City's Information Compliance Team at dataprotection@city.ac.uk.

What are the possible disadvantages of taking part?

We believe participation in the research is safe and do not expect you to suffer any harm or injury because of taking part. You may feel distressed answering questions about your self-harm and/or wonder if you do you have autistic traits and what that might mean. Should you at any point that feel answering the questions in the questionnaires could pose as a 'trigger' or you feel distressed, we ask you to immediately leave the study and not complete it. You will also receive a debriefing sheet which have numbers you can call for support. Should you have further questions you can contact the researcher.

What are the possible benefits of taking part?

By exploring a potential link between ASC and self-harm we hope to inform the evidence base and hopefully help people who are more likely to experience distress by this. By gaining a better understanding of this group, better interventions can be put in place to keep them safe. By taking part in the study you are part of that process.

What if there is a problem?

If you have concerns about this study you can contact the primary researcher by email: Cherie Morgan cherie.morgan@city.ac.uk or Dr Jessica Jones Nielsen jessica.jones-nielsen@city.ac.uk (supervisor).

This study has been reviewed by, and received ethics clearance through the Psychology Ethics Committee, City, University of London.

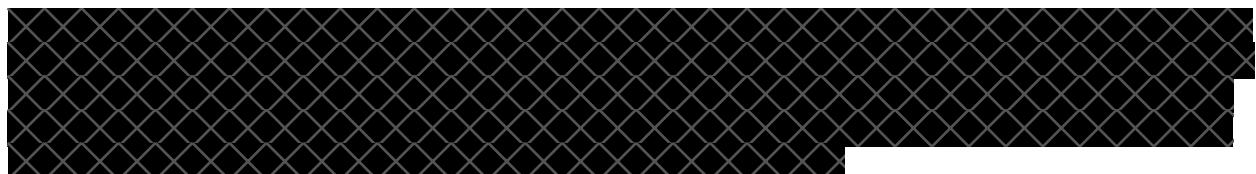
Data privacy statement

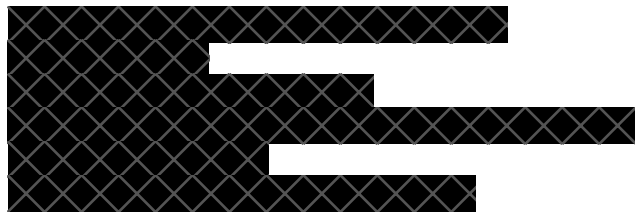
City, University of London is the sponsor and the data controller of this study based in the United Kingdom. This means that we are responsible for looking after your information and using it properly. The legal basis under which your data will be processed is City's public task.

Your right to access, change or move your information are limited, as we need to manage your information in a specific way in order for the research to be reliable and accurate. To safeguard your rights, we will use the minimum personal-identifiable information possible (for further information please see <https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/lawful-basis-for-processing/public-task/>).

City will use your name and contact details to contact you about the research study as necessary. The only people at City who will have access to your identifiable information will be Cherie Morgan. City will keep identifiable information about you from this study for approximately 1 year after the study has finished.

You can find out more about how City handles data by visiting <https://www.city.ac.uk/about/governance/legal>. If you are concerned about how we have processed your personal data, you can contact the Information Commissioner's Office (IOC) <https://ico.org.uk/>.





Insurance

City University London holds insurance policies which apply to this study, subject to the terms and conditions of the policy. If you feel you have been harmed or injured by taking part in this study you may be eligible to claim compensation. This does not affect your legal rights to seek compensation. If you are harmed due to someone's negligence, then you may have grounds for legal action.

Thank you for taking the time to read this information sheet.

Appendix C: Consent form – quantitative part

Informed Consent

Name of principal investigator/researcher: Cherie Morgan
REC reference number: ETH1920-1889

Title of study: Exploring the link between self-harm and autistic traits – a mixed methods design and analysis.

		Please tick or initial box
1	I confirm that I have read and understood the participant information sheet dated 17.01.2021, version 2, for the above study. I have had the opportunity to consider the information and ask questions which have been answered satisfactorily.	
2.	I understand that my participation is voluntary and that I am free to withdraw without giving a reason without being penalised or disadvantaged.	
3.	I understand that I will be able to withdraw my data up to 7 days after returning the questionnaire	
4.	I agree to City recording and processing this information about me. I understand that this information will be used only for the purpose(s) explained in the participant information and my consent is conditional on City complying with its duties and obligations under the General Data Protection Regulation (GDPR).	
5.	I agree to possibly being contacted later (within 6 months from today), asking to take part in a video and/or audio recorded interview, to which I can decline or accept, for which my contact details will be retained by the researcher.	
6.	I agree that the data collected from the questionnaires will be anonymised then kept for 10 years after the study has completed.	
7.	I agree to take part in the above study.	

Name of Participant Signature Date

Name of Researcher Signature Date

Appendix D: Debrief sheet – quantitative part

Exploring the link between self-harm and autistic traits – a mixed methods design and analysis.

DEBRIEF INFORMATION

Thank you for taking part in this study. Now that it's finished, we'd like to tell you a bit more about it.

Recent research has indicated that people with traits of autism are more likely to self-harm. This research is interested in exploring that further.

Self-harm is the biggest predictor for suicide – we feel these are unnecessary deaths that might be prevented. Researching self-harm and better understand why people engage in this helps us move closer to prevent it. By participating in this study, you are part of that process.

The autistic spectrum is a continuum, and it may be that many more people would find themselves on this continuum. That does not mean you are autistic or need a diagnosis of autism. Having traits of autism as it may have been indicated by the AQ10 questionnaire, does not mean you have autism.

Should you however feel that you might want to investigate it further, you can discuss this with your GP or mental health team and get referred for an assessment.

You can also get more information and advice from the autism helpline: 0808 800 4104

Should you wish to speak to someone about self-harm you can contact the services below:

Samaritans: telephone - 116 123

SHOUT: by text message, someone will message you back: 85258

Support line: www.supportline.org.uk or 01708765200

We hope you found the study interesting. If you have any other questions, please do not hesitate to contact us at the following:

cherie.morgan@city.ac.uk or jessica.jones-nielsen@city.ac.uk

Ethics approval code: *ETH1920-1889*

City, University of London is the data controller for the personal data collected for this research project. If you have any data protection concerns about this research project, please contact City's Information Compliance Team at dataprotection@city.ac.uk

Appendix E: Participant information sheet – qualitative part

Participant Information Sheet

Exploring the link between self-harm and autistic traits – a mixed methods design and analysis.

Researcher: Cherie Morgan

REC reference number: ETH2021-1787

We would like to invite you to take part in a research study which is being undertaken as part of a doctorate in counselling psychology.

Before you decide to take part, it is important for you to understand why the research is being done and what it will involve. You could talk to others (friends or family) about the study if you wish. Take time to decide whether or not you wish to take part. Please ask if anything is not clear.

Why is this research being carried out?

This research will evaluate if people with traits of autistic spectrum conditions (ASC) are more likely to self-harm. This part of the research is particularly interested in understanding people's experiences around their self-harm and how this may link in with any traits of ASC. It is very important to understand that the study does not diagnose autism.

Do I have to take part?

You do not have to take part. You are free to decide not to take part or to drop out at any time. If you decide not to take part, or drop out, this will not affect your medical care or legal rights.

What will my participation in the study involve?

You would already have filled in a questionnaire, and you are now asked to take part in an interview. This interview will be video recorded and last about 45 minutes. If you feel unable to do the interview via video call, we can arrange for a telephone interview, in which case it will be audio recorded. All your data will be securely stored and not linked to your name.

We understand that you may talk about distressing content and things that have happened to you. In order to ensure you are not severely impacted by this, we will ask you for your phone number so we can contact you for a brief check-up call within two days of having done the interview. We will arrange a time that suits you and your telephone number will be deleted from our records latest one month the follow-up call. The recording will be deleted once the study is completed in December 2022.

Will my participation in the study be kept confidential?

Yes, all information that you provide will be held as confidential. All Personal Data will be processed in accordance with the Data Protection Act 2018 and the General Data Protection Regulations (GDPR). City, University of London is the data controller for the personal data collected for this research project. If you have any data protection concerns about this research project, please contact City's Information Compliance Team at dataprotection@city.ac.uk. Anything you say will be confidential, however if content exposed indicate a risk to yourself or others, the researcher may need to break the confidentiality and contact the relevant services to keep you or others safe. This does not happen often and we would always try to let you know first, should this unlikely event become necessary.

What are the possible disadvantages of taking part?

We believe participation in the research is safe and do not expect you to suffer any harm or injury because of taking part. You may feel distress as you will be talking about your self-harm experience(s). Your interviewer is experienced in talking to people who have experienced distress however, if at any point you feel talking about your experiences is too difficult, please let the researcher know so you can stop. You can then decide if you want to continue or not however, if the interviewer feels it is too distressing for you to continue, the interview will also be stopped. You may also wonder if you do you have autistic traits and what that might mean for you. You will receive a debriefing sheet which have numbers you can call for support and further information. As well as

talking to the researcher during the interview, you can also contact the researcher following taking part should you have further questions. The researcher may choose to end the interview before it has been completed if she feels this is necessary to keep you safe.

What are the possible benefits of taking part?

By exploring a potential link between ASC and self-harm we hope to inform the evidence base and hopefully help people who are more likely to experience distress by this. By gaining a better understanding of this group, better interventions can be put in place to keep them safe. By taking part in the study, you are part of that process.

What if there is a problem?

If you have concerns about this study you can contact the primary researcher by email: cherie.morgan@city.ac.uk or Dr Jessica Jones Nielsen jessica.jones-nielsen@city.ac.uk (supervisor).

This study has been reviewed by, and received ethics clearance through the Psychology Ethics Committee, City, University of London.

Data privacy statement

City, University of London is the sponsor and the data controller of this study based in the United Kingdom. This means that we are responsible for looking after your information and using it properly. The legal basis under which your data will be processed is City's public task.

Your right to access, change or move your information are limited, as we need to manage your information in a specific way in order for the research to be reliable and accurate. To safeguard your rights, we will use the minimum personal-identifiable information possible (for further information please see <https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/lawful-basis-for-processing/public-task/>).

The only people at City who will have access to your identifiable information will be Cherie Morgan. City will not keep identifiable information about you after the study has finished.

You can find out more about how City handles data by visiting

<https://www.city.ac.uk/about/governance/legal>. If you are concerned about how we have processed your personal data, you can contact the Information Commissioner's Office (IOC) <https://ico.org.uk/>.

If you have any problems, concerns or questions about this study, you should ask to speak to a member of the research team. If you remain unhappy and wish to complain formally, you can do

this through City's complaints procedure. To complain about the study, you need to phone [REDACTED]
[REDACTED] You can then ask to speak to the Secretary to Senate Research Ethics Committee and inform them that the name of the project is Exploring the link between self-harm and autistic traits – a mixed methods design and analysis.

You can also write to the Secretary at:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Insurance

City University London holds insurance policies which apply to this study, subject to the terms and conditions of the policy. If you feel you have been harmed or injured by taking part in this study you may be eligible to claim compensation. This does not affect your legal rights to seek compensation. If you are harmed due to someone's negligence, then you may have grounds for legal action.

Thank you for taking the time to read this information sheet.

To thank you for your time you will get a voucher worth £15. This will be sent as an e-voucher to an email of your choice. This email will be deleted from our records as soon as the voucher has been sent, no later than 2 days after the interview.

Appendix F: Consent form – qualitative part

Informed Consent

Name of principal investigator/researcher: Cherie Morgan

REC reference number: ETH2021-1787

Title of study: Exploring the link between self-harm and autistic traits – a mixed methods design and analysis.

Please tick or
initial box

1	I confirm that I have read and understood the participant information dated 24.04.2021, version 4, for the above study. I have had the opportunity to consider the information and ask questions which have been answered satisfactorily.	
2.	I understand that my participation is voluntary and that I am free to withdraw without giving a reason, without being penalised or disadvantaged.	
3.	I understand that I will be able to withdraw my data up to 7 days after the interview.	
4.	I agree to participating in an interview taking place on Microsoft Teams, Zoom or by telephone.	
5.	I agree to the interview being video recorded (or audio recorded only if interview done over phone).	
6.	I agree to City recording and processing this information about me. I understand that this information will be used only for the purposes explained in the participant information and my consent is conditional on City complying with its duties and obligations under the General Data Protection Regulation (GDPR).	
7.	I agree that the anonymised transcripts from the recordings will be kept for 10 years after the study has completed and any recordings will be deleted by the end of the study, Dec 2022.	
8.	I agree to providing my telephone number to the researcher and for her to contact me within 2 days of the interview, at an agreed time for a check-up call and understand that my phone number will be deleted latest a month after the call.	
9.	Confidentiality has been explained to me and I understand the researcher may need to break confidentiality if she feels there is a risk of harm to myself or others.	
10.	I agree to take part in the above study	

Name of Participant

Signature

Date

Name of Researcher

Signature

Date

Appendix G: Debrief sheet – qualitative part

Exploring the link between self-harm and autistic traits – a mixed methods design and analysis.

DEBRIEF INFORMATION

Thank you for taking part in this study. Now that it is finished, we would like to tell you a bit more about it.

You were invited for an interview on the basis of your responses in the questionnaires. Existing research suggests a link between some of the questions (AQ-10 questionnaire) and self-harm. We were interested in hearing more about your experiences with self-harm and how this may play a role in how you answered the questionnaire.

Recent research has indicated that people with traits of autism are more likely to self-harm. This research is interested in exploring that further to better understand why people self-harm and how they can be helped. By participating in this study, you are part of that process.

The autistic spectrum is a continuum and it may be that many more people would find themselves on this continuum than currently known. That does not mean you are autistic or need a diagnosis of autism. Having traits of autism as may have been indicated by the AQ10 questionnaire, does not mean you have autism.

Should you however feel this is something you would like to investigate further, you can discuss this with your GP or mental health team and get referred for an assessment.

You can also get more information from the autism helpline: 0808 800 4104

Should you wish to speak to someone about self-harm you can contact the following services:

Samaritans: telephone - 116 123

SHOUT: by text message, someone will message you back: 85258

Supportline: www.supportline.org.uk or 01708765200

We hope you found the study interesting. If you have any other questions please do not hesitate to contact us at the following: cherie.morgan@city.ac.uk or jessica.jones-nielsen@city.ac.uk. You have provided us with your telephone number and as agreed we will contact you within the next two days for a check-up call. Should you need to speak to someone sooner, please do call the researcher or one of the helplines suggested.

To thank you for your time we would like to give you a £15 voucher.

Ethics approval code: *ETH2021-1787*

City, University of London is the data controller for the personal data collected for this research project. If you have any data protection concerns about this research project, please contact City's Information Compliance Team at dataprotection@city.ac.uk

Appendix H: Interview schedule

Name of researcher: Cherie Morgan

REC reference number: ETH1920-1889

Semi-structured interview schedule

- Introduce self
- Aim of the interview:
- Confidentiality, check participant is still happy to participate in the research
- Stress the following points:
 - We are interested in what is important to you
 - There are no right or wrong answers, it is your perspective that we are interested in
 - You are not obliged to answer; if you don't want to talk about a subject, please say so and we will move on

Prompts to check participant is happy to explore further sensitive issues: *Is it alright if we talk about that?*

1. Can you tell me about the first time you self-harmed (or attempted suicide if applicable).
2. What led you to doing so?
3. You filled in a screening test for autistic traits – what are your feelings and thoughts around this?
4. How long have you felt like this (if applicable).
5. As a child did you feel different to you peers?
6. As an adult have you felt different to others?
7. What has your experience with professionals been like in that connection?
8. What could have been done to support you better?
9. What was done well by professionals/friends/family when you needed support?
10. Have you got any questions?

Prompts (if not already used):

- Ask for examples.
- Could you describe that to me?
- How did that feel?
- What was the best thing about that?
- What could have been done differently?

Appendix I: Study advertisement flyer

Department of Psychology, School of Arts and Social Sciences, City, University of London

PARTICIPANTS NEEDED FOR RESEARCH IN SELF-HARM

We are looking for volunteers 18 years or older who have previously self-harmed to take part in a study investigating links between self-harm and traits of autism.

As a participant in this study, you would be asked to fill in a short questionnaire online asking about your self-harm experiences. You will also be asked questions based on the AQ(10) questionnaire which is often used as a screening tool to detect traits of autism. The questionnaires will be filled in online via a secure platform.

It will take approximately 10-15 minutes to fill in the online questionnaire. You may be requested to take part in an interview at a later stage to which you can accept or decline to take part.

For more information about this study
please contact:

*Cherie Morgan (doctoral research student) or Dr Jessica Jones-Nielsen (supervisor) from the
Psychology Department*

at

07817880076 or

Email: cherie.morgan@city.ac.uk / jessica.jones-nielsen@city.ac.uk

To volunteer for the study please click on this link:

https://cityunilondon.eu.qualtrics.com/jfe/form/SV_a5WoiYraX0latq5

This study has been reviewed by, and received ethics clearance
through the Psychology Ethics Committee, City, University of London.

If you would like to complain about any aspect of the study, please contact the Secretary to the Senate Research Ethics Committee on [REDACTED]

City, University of London is the data controller for the personal data collected for this research project. If you have any data protection concerns about this research project, please contact City's Information Compliance Team at dataprotection@city.ac.uk

Appendix J: AQ10

Autism Spectrum Quotient (AQ)

A quick referral guide for adults with suspected autism who do not have a learning disability.

	Please tick one option per question only:	Definitely agree	Slightly agree	Slightly disagree	Definitely disagree
1	I often notice small sounds when others do not.				
2	I usually concentrate more on the whole picture, rather than the small details.				
3	I find it easy to do more than one thing at once				
4	If there is an interruption, I can switch back to what I was doing very quickly				
5	I find it easy to 'read between the lines' when someone is talking to me				
6	I know how to tell if someone listening to me is getting bored				
7	When I'm reading a story I find it difficult to work out the characters' intentions				
8	I like to collect information about categories of things (e.g. types of car, bird, train, plant etc.)				
9	I find it easy to work out what someone is thinking or feeling just by looking at their face				
10	I find it difficult to work out people's intentions				

SCORING: Only 1 point can be scored for each question. *Score 1 point for Definitely or Slightly agree on each of items 1, 7, 8, and 10. Score 1 point for Definitely or Slightly Disagree on each of items 2, 3, 4, 5, 6, and 9.* If the individual scores **more than 6 out of 10**, consider referring them for a specialist diagnostic assessment.

This test is recommended in 'Autism: recognition, referral, diagnosis and management of adults on the autism spectrum' (NICE clinical guideline CG142). www.nice.org.uk/CG142

Key reference: Allison C, Auyeung B, and Baron-Cohen S, (2012) *Journal of the American Academy of Child and Adolescent Psychiatry* 51(2):202-12.

Appendix K: Demographic and screening questions

End of Block: Block 3

Start of Block: Health / demographics

Q2.1 Please enter your email address



Q2.2 What is your age?

- ☐ 18-25 (1)
- ☐ 26-35 (2)
- ☐ 36-45 (3)
- ☐ 46-55 (4)
- ☐ 56-65 (5)
- ☐ above 65 (6)

Q2.3 What is your gender?

- ☐ Male (1)
 - ☐ Female (2)
 - ☐ Non-binary / third gender (3)
 - ☐ Prefer not to say (4)
-

Q2.4 Have you got any diagnosed mental health disorder or developmental disorder?

☐ Yes (1)

☐ No (2)

Skip To: Q2.5 If Have you got any diagnosed mental health disorder or developmental disorder? = Yes

Skip To: Q2.7 If Have you got any diagnosed mental health disorder or developmental disorder? = No

DROP DOWN MENU

Q2.6 Other mental health or developmental disorder not listed above

Q2.7 Are you subject to Ministry of Justice restriction order?

☐ Yes (1)

☐ No (2)

Skip To: End of Survey If Are you subject to Ministry of Justice restriction order? = Yes

Q2.8 Have you ever self-harmed?

☐ Yes (1)

☐ No (2)

Skip To: End of Survey If Have you ever self-harmed? = No

Q2.9 Do you still self-harm at times?

☐ Yes (1)

☐ No (2)

Q2.10 Have you ever self-harmed with intent to kill yourself?

☐ Yes (1)

☐ No (2)

Q2.11 Do you need help for self-harm right now?

☐ Yes (1)

☐ No (2)

Skip To: End of Survey If Do you need help for self-harm right now? = Yes

Appendix L: ISAS I&II

INVENTORY OF STATEMENTS ABOUT SELF-INJURY (ISAS) – SECTION I. BEHAVIORS

This questionnaire asks about a variety of self-harm behaviors. Please only endorse a behavior if you have done it intentionally (i.e., on purpose) and without suicidal intent (i.e., not for suicidal reasons).

1. Please estimate the number of times in your life you have intentionally (i.e., on purpose) performed each type of non-suicidal self-harm (e.g., 0, 10, 100, 500):

Cutting	_____	Severe Scratching	_____
Biting	_____	Banging or Hitting Self	_____
Burning	_____	Interfering w/ Wound Healing (e.g., picking scabs)	_____
Carving	_____	Rubbing Skin Against Rough Surface	_____
Pinching	_____	Sticking Self w/ Needles	_____
Pulling Hair	_____	Swallowing Dangerous Substances	_____
Other _____,	_____		

Important: If you have performed one or more of the behaviors listed above, please complete the final part of this questionnaire. If you have not performed any of the behaviors listed above, you are done with this particular questionnaire and should continue to the next.

2. If you feel that you have a *main* form of self-harm, please circle the behavior(s) on the first page above that you consider to be your main form of self-harm.

3. At what age did you:

First harm yourself? _____

Most recently harm yourself? _____
(approximate date – month/date/year)

4. Do you experience physical pain during self-harm?

Please circle a choice:

YES

SOMETIMES

NO

5. When you self-harm, are you alone?

Please circle a choice:

YES

SOMETIMES

NO

6. Typically, how much time elapses from the time you have the urge to self-harm until you act on the urge?

Please circle a choice:

< 1 hour

1 - 3 hours

3 - 6 hours

6 - 12 hours

12 - 24 hours

> 1 day

7. Do/did you want to stop self-harming?

Please circle a choice:

YES

NO

INVENTORY OF STATEMENTS ABOUT SELF-INJURY (ISAS) – SECTION II. FUNCTIONS

Name: _____

Date: _____

Instructions

This inventory was written to help us better understand the experience of non-suicidal self-harm. Below is a list of statements that may or may not be relevant to your experience of self-harm. Please identify the statements that are most relevant for you:

- Circle **0** if the statement **not relevant** for you at all
- Circle **1** if the statement is **somewhat relevant** for you
- Circle **2** if the statement is **very relevant** for you

“When I self-harm, I am ...

	<u>Response</u>		
1. ... calming myself down	0	1	2
2. ... creating a boundary between myself and others	0	1	2
3. ... punishing myself	0	1	2
4. ... giving myself a way to care for myself (by attending to the wound)	0	1	2
5. ... causing pain so I will stop feeling numb	0	1	2
6. ... avoiding the impulse to attempt suicide	0	1	2
7. ... doing something to generate excitement or exhilaration	0	1	2
8. ... bonding with peers	0	1	2
9. ... letting others know the extent of my emotional pain	0	1	2
10. ... seeing if I can stand the pain	0	1	2
11. ... creating a physical sign that I feel awful	0	1	2
12. ... getting back at someone	0	1	2
13. ... ensuring that I am self-sufficient	0	1	2
14. ... releasing emotional pressure that has built up inside of me	0	1	2
15. ... demonstrating that I am separate from other people	0	1	2
16. ... expressing anger towards myself for being worthless or stupid	0	1	2

Response Key: 0 – not relevant, 1 – somewhat relevant, 2 – very relevant

“When I self-harm, I am ...

17. ... creating a physical injury that is easier to care for than my emotional distress	0	1	2
18. ... trying to feel something (as opposed to nothing) even if it is physical pain	0	1	2
19. ... responding to suicidal thoughts without actually attempting suicide	0	1	2
20. ... entertaining myself or others by doing something extreme	0	1	2
21. ... fitting in with others	0	1	2
22. ... seeking care or help from others	0	1	2
23. ... demonstrating I am tough or strong	0	1	2
24. ... proving to myself that my emotional pain is real	0	1	2
25. ... getting revenge against others	0	1	2
26. ... demonstrating that I do not need to rely on others for help	0	1	2
27. ... reducing anxiety, frustration, anger, or other overwhelming emotions	0	1	2
28. ... establishing a barrier between myself and others	0	1	2
29. ... reacting to feeling unhappy with myself or disgusted with myself	0	1	2
30. ... allowing myself to focus on treating the injury, which can be gratifying or satisfying	0	1	2
31. ... making sure I am still alive when I don't feel real	0	1	2
32. ... putting a stop to suicidal thoughts	0	1	2
33. ... pushing my limits in a manner akin to skydiving or other extreme activities	0	1	2
34. ... creating a sign of friendship or kinship with friends or loved ones	0	1	2
35. ... keeping a loved one from leaving or abandoning me	0	1	2
36. ... proving I can take the physical pain	0	1	2
37. ... signifying the emotional distress I'm experiencing	0	1	2
38. ... trying to hurt someone close to me	0	1	2
39. ... establishing that I am autonomous/independent	0	1	2

Response Key: 0 – not relevant, 1 – somewhat relevant, 2 – very relevant

(Optional) In the space below, please list any statements that you feel would be more accurate for you than the ones listed above:

(Optional) In the space below, please list any statements you feel should be added to the above list, even if they do not necessarily apply to you:

ITEMS COMPRISING EACH OF 13 FUNCTIONS SCALES

Affect Regulation – 1, 14, 27

Interpersonal Boundaries – 2, 15, 28

Self-Punishment – 3, 16, 29

Self-Care – 4, 17, 30

Anti-Dissociation/Feeling-Generation – 5, 18, 31

Anti-Suicide – 6, 19, 32

Sensation-Seeking – 7, 20, 33

Peer-Bonding – 8, 21, 34

Interpersonal Influence – 9, 22, 35

Toughness – 10, 23, 36

Marking Distress – 11, 24, 37

Revenge – 12, 25, 38

Autonomy – 13, 26, 39

Scores for each of the 13 functions range from 0 to 6.

Studies Validating and Using the ISAS

Psychometric properties of ISAS Section I (Behaviors) are reported in:

Klonsky, E.D. & Olino, T.M. (2008). Identifying clinically distinct subgroups of self-injurers among young adults: A latent class analysis. *Journal of Consulting and Clinical Psychology, 76*, 22-27.

Psychometric properties of ISAS Section II (Functions) are reported in:

Klonsky, E.D. & Glenn, C.G. (2009) Assessing the functions of non-suicidal self-injury: Psychometric properties of the Inventory of Statements About Self-injury (ISAS). *Journal of Psychopathology and Behavioral Assessment, 31*, 215-219.

Additional psychometric studies of the ISAS:

Kortge, R., Meade, T., & Tennant, A. (2013). Interpersonal and intrapersonal functions of deliberate self-harm (DSH): A psychometric examination of the Inventory of Statements About Self-injury (ISAS) scale. *Behaviour Change, 30*, 24-35.

Glenn, C.G. & Klonsky, E.D. (2011). One-year test-retest reliability of the Inventory of Statements About Self-injury (ISAS). *Assessment, 18*, 375-378.

Bildik, T., Somer, O. Kabukcu Basay, B., Basay, O., & Ozbaran, B. (2013). The validity and reliability of the Turkish version of the Inventory of Statements About Self-injury. *Turkish Journal of Psychiatry*.

Other studies using part or all of the ISAS (list not comprehensive):

Hamza, C.A. & Willoughby, T. (2013). Nonsuicidal self-injury and suicidal behavior: A latent class analysis among young adults. *PLOS One, 8*(3), e59955.

Zaki, L.F., Coifman, K.G., Rafaeli, E., Berenson, K.R., & Downey, G. (2013). Emotion differentiation as a protective factor against nonsuicidal self-injury in Borderline Personality Disorder. *Behavior Therapy, 44*, 529-540.

Glenn, C.R. & Klonsky, E.D. (2013). Non-suicidal self-injury disorder: An empirical investigation in adolescent psychiatric inpatients. *Journal of Clinical Child & Adolescent Psychology, 42*, 496-507.

Victor, S.E., Glenn, C.R., & Klonsky, E.D. (2012). Is non-suicidal self-injury an "addiction"? A comparison of craving in substance use and non-suicidal self-injury.

Psychiatry Research, 197, 73-77.

Weinberg, A. & Klonsky, E.D. (2012). The effects of self-injury on acute negative arousal: A laboratory simulation. *Motivation and Emotion*, 36, 242-254.

Glenn, C.R., Blumenthal, T.D., Klonsky, E.D., & Hajcak, G. (2011). Emotional reactivity in nonsuicidal self-injury: Divergence between self-report and startle measures. *International Journal of Psychophysiology*, 80, 166-170.

Glenn, C.R. & Klonsky, E.D. (2011). Prospective prediction of non-suicidal self-injury: A one-year longitudinal study. *Behavior Therapy*, 42, 751-762..

Klonsky, E.D. (2011). Non-suicidal self-injury in United States adults: Prevalence, sociodemographics, topography, and functions. *Psychological Medicine*, 41, 1981-1986.

Lindholm, T. (2011). Functions of non-suicidal self-injury among young women in residential care: A pilot study with the Swedish version of the Inventory of Statements About Self-injury (ISAS). *Cognitive Behaviour Therapy*, 40, 183-189.

Glenn, C.R. & Klonsky, E.D. (2010). A multimethod analysis of impulsivity in non-suicidal self-injury. *Personality Disorders: Theory, Research, and Treatment*, 1, 67-75.

Glenn, C.R. & Klonsky, E.D. (2010). The role of seeing blood in non-suicidal self-injury. *Journal of Clinical Psychology*, 66, 1-8.

Glenn, C.R. & Klonsky, E.D. (2009). Social context during non-suicidal self-injury indicates suicide risk. *Personality and Individual Differences*, 46, 25-29.

Appendix M: Interview schedule

Name of researcher: Cherie Morgan

REC reference number: ETH2021-1787

Semi-structured interview schedule

- Introduce self
- Aim of the interview:
- Confidentiality, check participant is still happy to participate in the research
- Stress the following points:
 - We are interested in what is important to you
 - There are no right or wrong answers, it is your perspective that we are interested in
 - You are not obliged to answer; if you don't want to talk about a subject, please say so and we will move on
 - The researcher will contact you within two days of this interview for a brief check-up call. We will find a suitable time for you at the end of the interview.

Prompts to check participant is happy to explore further sensitive issues: *Is it alright if we talk about that?*

11. Can you tell me about the first time you self-harmed (or attempted suicide if applicable).
12. What led you to doing so?
13. You filled in a screening test for autistic traits – what are your feelings and thoughts around this?
14. How long have you felt like this (if applicable).
15. As a child did you feel different to your peers?
16. As an adult have you felt different to others?
17. What has your experience with professionals been like in that connection?
18. What could have been done to support you better?
19. What was done well by professionals/friends/family when you needed support?
20. Have you got any questions?
21. What time would you like me to call you, either tomorrow or the day after?
22. What is your phone number?

Prompts (if not already used):

- Ask for examples.
- Could you describe that to me?
- How did that feel?
- What was the best thing about that?
- What could have been done differently?

Appendix N: Publishing guidelines for 'Autism' Journal

1. What do we publish?

1.1 Aims & Scope

Before submitting your manuscript to Autism, please ensure you have read the [Aims & Scope](#).

There is no need to submit a pre-submission enquiry to the journal, and in fact we discourage this as our scope is clearly stated at the link above.

It is journal policy for all submitted manuscripts to be screened by an Editor who will decide whether to send the manuscript for review. In this screening process, Editors will focus on:

- fit with the journal aims and scope, and listed Article Types (see below)
- relevance to autistic people's quality of life
- justification of the research question
- relevance and quality of the methods and analysis methods for the topic under study
- validity of the conclusions in relation to the methods and findings
- quality of the writing
- potential for practical impact

1.2 Article Types

The Journal considers the following kinds of article for publication:

Research Reports. Full papers describing new empirical findings. These papers may present quantitative and/or qualitative data. In each case, the methods should be carefully selected to address the research question being posed, with due justification being given for: needfulness of the research; relevance to autistic people's quality of life; appropriateness of the sample size and diversity; quality of the methods; robustness of the analysis methods; validity of the conclusions.

Fundamental or basic scientific discoveries can be considered for publication but need to make a convincing case for relevance to autistic people's lives, especially if future implementation of the discovery is still far off.

Research Reports are generally restricted to a maximum of 6,000 words, including all elements (title page, abstract [200 words maximum], notes, tables, text), but excluding references. Editors may ask authors to make certain cuts before sending the article out for review

Before submitting a Research Report, please make sure to review the author guidelines, and especially section 2.8 for our reporting expectations.

Review Articles. General reviews that provide a synthesis of an area of autism research. These will normally be systematic but narrative and/or focused reviews can be considered if the authors make a convincing case for their ability to address a gap in knowledge.

Review Articles are generally restricted to a maximum of 6,000 words, including all elements (title page, abstract [200 words maximum], notes, tables, text), but excluding references. Editors may ask authors to make certain cuts before sending the article out for review.

Before submitting a Review, please make sure to review the author guidelines and especially section 2.8 for our reporting expectations.

Short Reports. Brief papers restricted to a maximum of 2,000 words with no more than two tables and 15 references. The title should begin with 'Short Report'. Short reports also report empirical findings from quantitative and / or qualitative data, but these may be preliminary, low-impact, or otherwise less substantial than a Research Report. Another reason to submit a Short Report is if your rationale, methods and findings are simple and neat. If your paper can be reported within the 2000 word limit we would encourage you to do so.

Letters to the Editors. Readers' letters should address issues raised by articles published in our journal, or issues in the field of autism research more generally. The issues should be contextualised within the literature to permit readers to draw general conclusions. Letters might cover: discussions of existing debates in the literature, articulations of new or controversial ideas, comments on work published in our journal, theoretical perspectives, methodological or conceptual critiques. The decision to publish is made by the Editors, in order to ensure a timely appearance in print. Letters should be no more than 1000 words, with no tables and a maximum of 5 references.

1.3 Writing your paper

The SAGE Author Gateway has some general advice and on [how to get published](#), plus links to further resources. [SAGE Author Services](#) also offers authors a variety of ways to improve and enhance their article including English language editing, plagiarism detection, and video abstract and infographic preparation.

1.3.1 Make your article discoverable

When writing up your paper, think about how you can make it discoverable. The title, keywords and abstract are key to ensuring readers find your article through search engines such as Google. For information and guidance on how best to title your article, write your abstract and select your keywords, have a look at this page on the Gateway: [How to Help Readers Find Your Article Online](#).

[Back to top](#)

2. Editorial policies

2.1 Peer review policy

Autism operates a strictly anonymous peer review process in which the reviewer's name is withheld from the author and, the author's name from the reviewer. The reviewer may at their own discretion opt to reveal their name to the author in their review but our standard practice is for both identities to remain concealed. Each new submission is carefully read by one of the Editors to decide whether it has a reasonable chance of getting published, consulting with other Editors if and when they feel it is necessary. Our Editors strive to make this initial review within two weeks after submission, so that authors do not have to wait long for a rejection. In some cases, feedback may also be provided on how to improve the manuscript, or what other journal would be more suitable. The criteria used by the Editors when determining what to reject or send for review as described here [\[https://journals.sagepub.com/author-instructions/aut#Aims-Scope\]](https://journals.sagepub.com/author-instructions/aut#Aims-Scope). Each manuscript which passes this initial screening, is sent out for peer review by at least two referees. All manuscripts are reviewed as rapidly as possible, and an editorial decision is generally reached within (e.g.) 6-8 weeks of submission.

2.2 Authorship

All parties who have made a substantive contribution to the article should be listed as authors. Principal authorship, authorship order, and other publication credits should be based on the relative scientific or professional contributions of the individuals involved, regardless of their status. A student is usually listed as principal author on any multiple-authored publication that substantially derives from the student's dissertation or thesis.

2.3 Acknowledgements

All contributors who do not meet the criteria for authorship should be listed in an Acknowledgements section. Examples of those who might be acknowledged include a person who provided purely technical help, or a department chair who provided only general support.

Please supply any personal acknowledgements separately to the main text to facilitate anonymous peer review.

2.3.1 Third party submissions

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As part of your submission you will be asked to provide a lay abstract of your article. Lay abstracts are a brief (max 250 words) description of the paper that is easily understandable. These abstracts will be made widely available (to the general public, and particularly to autistic people and their families). As such, lay abstracts should avoid both technical terminology and the reporting of statistics. Examples of lay abstracts are provided in recent issues of the journal.

Authors may consider the following questions when composing their lay abstract.

- a. What is already known about the topic?
- b. What this paper adds?
- c. Implications for practice, research or policy

Authors may also find the following resources helpful on this topic:

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Katie Maras

Department of Psychology

University of Bath, UK

Email: katiemaras.autism@gmail.com

Appendix O: Extract of coded transcript

Classification Sheets | Attribute Values | Bibliographic Data | Search

Codebook | Items | List | Classification Sheets | Export

Code Annotations

Definitely. I really would, and I just found it so easy.

One of the things I found, I believe it's so easy to cause offence. I just found that I'd have to almost, learn. Quite literally, I would Google what to say if someone says this, what to say if someone says that, so that you won't upset them. Even I'd go so far as if I knew somebody from a different country was at an event, I would look up customs and things, just to make sure that I didn't offend.

Because I found that I would say things that I wouldn't realise they'd be offensive. I wouldn't understand. Obviously, when I say offensive, I would not say a slur, a racial slur. But I had to almost, teach myself how to interact and even to this day,

I very much, mimic the behaviours of the people around me. As in I can make the distinction that they're positive behaviours.

But if I was out for drinks and I saw somebody pick up a glass of wine and throw it on the ground, I would not mimic that behaviour.

There's this awareness. I know what behaviours are positive or socially acceptable, but I need to learn how to do them or what they are played out. There's a lot of learning how to be like everybody else. Even to adulthood, I still will do that. I'll still have to, almost check myself, just to make sure. It's quite stressing. You're tired of having to watch people. I would even, to the point, mirror people. If someone's hand moved for their drink, my hand would move for a drink. It's demeaning, in a sense.

Coding Density

autistic

difficulty socialising

difficulty conversing

shame

twin sister

communication

not supported

PART B: Combined case study / process report

Title: An assimilative psychodynamic approach for a complex case.

All names used in this report as well as any other identifying information have been changed to pseudonyms or left out entirely to ensure complete anonymity of the client.

This section has been omitted from publication to protect the anonymity of the client.

Part C: Publishable Journal Article

Exploring the link between self-harm and autistic traits – a mixed methods design and analysis

This article is intended for submission to the *Autism* journal for publication

Title page: Exploring the link between self-harm and autistic traits – a mixed methods design and analysis

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Abstract

Self-harm is increasingly recognised as a global health crisis on the rise in both children and adults. Individuals with autism spectrum condition (ASC) are more likely to self-harm and die by suicide compared to the general population. Early identification of ASC is crucial for mental health outcomes however, pursuing and gaining access to autism assessments can be a lengthy process, particularly with an increase in demand. ASC is a wide spectrum and those on the higher end of the spectrum may never be identified as having ASC. Females especially tend to go undiagnosed or be mis-diagnosed due to camouflaging or experience symptoms of ASC differently. This may suggest that there is a 'lost' population of individuals with high traits of ASC but no diagnosis. A mixed methods design was conducted to identify the prevalence of individuals with traits of ASC (without a diagnosis) within a self-harming population and gain a richer understanding of their experiences through reflexive thematic analysis. Results indicated that the self-harming group had a significantly higher mean AQ10 score compared to the general population $t(110) = 14.699, p = <.001$. 43.24% in the self-harming group scored above clinical cut-off for ASC. These findings were further explained by the qualitative data, suggesting that self-harming individuals with high traits of ASC had felt different to their peers as children and this had continued into adulthood where they struggled particularly with socialisation – a key characteristic of ASC. It is key that this group is identified to reduce the rate of self-harm, offer them appropriate interventions and an opportunity for better understanding their differences and difficulties themselves, especially as research suggests self-harm as a crucial indicator for suicide.

Key words: Autism, self-harm, NSSI, trait of autism, ASC, suicide

1. Terminology

1.1 Autistic Spectrum Condition

The term ASC has been favoured instead of the more common term 'Autistic Spectrum Disorder' (ASD). The researcher strongly felt that it would be preferred if autism was viewed by society as a condition, not a disorder. A disorder is often viewed as something that needs to be 'fixed'. The terminology is important not only to respect those individuals the research was about and with, but also to think about how our use of language impacts others.

1.2 Self-harm

For this paper the term 'self-harm' is used, and the definition has been adopted from the National Institute of Clinical Excellence (NICE, 2022). The definition by NICE (2022) states the following: *"People who have carried out intentional self-poisoning or injury, irrespective of the apparent purpose of the act"*.

2 Introduction

ASC is a complex neurodevelopmental condition characterised by a triad of impairment (cognition, imagination, and communication), specific interests and repetitive behaviours (American Psychiatric Association, 2013) which can have life-long effects on adaptive functioning (Baron-Cohen, 2004). The condition is typically picked up in a child's early years when parents/carers notice that the child is not developing as expected.

Individuals with ASC have a higher mortality rate generally, including death by suicide (Hirvikoski et al., 2016). The ASC population are also more likely to have co-occurring psychiatric disorders (Lai et al., 2019). A recent systematic review and meta-analysis found that about 70% of individuals with ASC also have a comorbid psychiatric condition and/or neurodevelopmental condition (ADHD being the most common) and about 40% have two or more comorbid condition which are also associated with increased risk of suicide. They reported mood and anxiety disorders as some of the most common (after ADHD) and substance misuse and eating disorders as the least common comorbidities found within the ASC population (Lugo-Marin et al., 2019).

2.1 Self-harm

Self-harm is an ongoing concern for children, adolescents, and adults on a national and global scale. In England alone, there are over 200,000 self-harm hospital presentations a year, costing an estimated £128 million (McDaid, 2021). The prevalence of self-harm in England has nearly tripled in the last 10 years (McManus et al., 2019). People who seek medical attention for self-harm have a risk of dying by suicide that is more than 50 times higher than that of the general population and this risk is especially significant in the months after hospital discharge (Geulayov et al., 2019)

2.2 Self-harm and suicide in individuals with ASC

Recent research has indicated that people with ASC are more likely to die by suicide than the general population (Hedley & Uljarevic, 2018). However, little is known about the reasons for this. Hirvikoski et al. (2016) investigated premature mortality in individuals with ASC through Swedish cohort data and found that significantly more in the ASC group had died by suicide compared to the control group. They also reported numbers from their ASC group after they had split them into low-functioning ASC and high-functioning ASC. The rate of death by suicide in their sample was 0.11% in the low-functioning group and 0.36% in the high-functioning group.

Cassidy et al. (2018b) investigated risk markers for suicidality in a group of 164 autistic adults. They found, that when compared to the general population, the ASC group had significantly higher SBQ-R scores, which was the instrument used to measure suicidality, although there was no difference found between males and females within the ASC group. They also found that autistic adults were significantly more likely to report lifetime self-harm (63.3%) compared to the general population (29.8%) and within the ASC group, this difference was also significantly higher for autistic females compared to autistic males. Their results further investigated predictors of suicidality in ASC and found that lifetime self-harm, unmet support needs, anxiety, depression, ADHD, camouflaging and satisfaction with living arrangements all correlated significantly with suicidality (as measured by total SBQ-R scores). Their findings were consistent with previous studies (Hedley & Uljarevic, 2018; Swanell et al., 2014) indicating that adults with ASC are at a significantly increased risk of both self-harm and suicide compared to the general population.

Some of the factors associated with self-harm in the general population included socio-economic background, poorly educated parents, poor mental health, and

neurodevelopmental conditions. Malhi & Sankhyan (2021) found some of the same risk factors were positively correlated in a sample of children with ASC, however a regression analysis showed that the only significant predictor for self-harm in their sample was severity of ASC. They also found that participants who had an intellectual disability (ID) were significantly more likely to self-harm compared to those without. This is in line with previous findings, reporting that self-harming behaviours such as head-banging and slapping hands/face are common in people with ASC who also have intellectual disabilities (Steenfeldt-Kristensen et al., 2020). This may be explained by the difference in function and definition in self-harm and self-injurious behaviour (SIB), commonly seen in individuals with ID (Chiang 2008). Therefore, it is important to explore the prevalence of self-harm in individuals with ASC, without ID. License and colleagues (2019) did this in a sample of children (0-18 years of age). They discovered a high prevalence of self-harm in their sample (24.1%) compared to the neurotypical individuals (5-17%), (Swannell et al., 2014). However, the prevalence of self-harm remained significantly lower in the ASC child sample compared to an ASC adult sample (50%), (Maddox et al., 2017). Interestingly, a separate study found no positive association between severity of ASC and self-harm in an adult sample with ASC (Moseley et al., 2019) which may account for why there is a significantly higher rate of self-harm in adults with ASC compared to children with ASC, despite the child ASC population being significantly more likely to self-harm compared to neurotypical children.

2.3 Timing of ASC diagnosis

There is great variability in when people receive an ASC diagnosis. ASC can be diagnosed from 2 years of age although typically children with ASC only receive a diagnosis after they have started education (Daniels & Mandell, 2014). Some do not get a diagnose until their adolescent years whilst others reach adulthood with their condition unrecognised (Hosozawa et al., 2021). Research has indicated that late diagnosis is associated with more mental health problems across their life span, compared to those who received an earlier diagnosis (Mandy et al., 2022).

Mariko et al., (2020) investigated the timing of diagnosis and how this affected self-harm in children and adolescents with ASC and without ASC ranging from the ages of 5–14-year-old. They analysed data from the UK Millennium Cohort Study and reported that children who were diagnosed after the age of 11 were most likely to engage in self-harm by the age of 14 as well as having depressive symptoms. Their results suggest that timing of diagnosis is associated with occurrence of self-harm. The earlier a diagnosis of ASC is received, the

better the prognosis for their future mental health. As self-harm is a predictor of suicide, early identification may consequently also prevent some suicides in individuals with ASC.

2.5 Self-harm and suicide in individuals with traits of ASC (not diagnosed)

Richards et al. (2019) investigated whether people with traits of ASC (but no diagnosis) were more likely to have attempted suicide. They recruited participants via suicide prevention websites, research data bases and social media. Their sample included all participants who had completed the Autism Quotient 50 (AQ) and reported that they had attempted suicide ($n = 132$). They compared the total AQ scores (0-50) and found that the overall sample had a mean AQ score of 25.83 (SD = 10.354); those participants who had attempted suicide once had a mean score of 22.80 (SD = 11.208); and those participants who had attempted suicide more than once had a mean AQ score of 27.63 (SD = 9.665). Comparatively, Ruzich et al. (2015) conducted a meta-analysis which included 6934 non-clinical participants across 78 studies and found them to have a mean AQ score of 16.94 (SD = 8.671). The AQ consists of five subscales and was developed to identify autistic traits in people with average or above average IQ. A score of ≥ 32 was suggested to indicate presence of autism. However, a score of ≥ 26 has been demonstrated to indicate a good validity in a clinically referred sample (Woodbury-Smith et al, 2005). This indicates that even without reaching clinically significant AQ scores for the purpose of diagnosis, higher levels of autistic traits could indicate a higher risk of suicide.

More precise estimates of prevalence of self-harm within a population with traits of ASC are needed. This is important for how helping professions, carers and society view and treat self-harm and for outcomes for those affected.

3 Procedures

The study made use of an explanatory sequential mixed methods design with two parts (Creswell et al., 2003; Tashakkori & Teddlie, 1998). A sequential explanatory design implies that an exploration of the findings of the first part of the study would refine the understanding of the results of second part. In this study, the quantitative part came first and the qualitative part which followed attempted to explain the results found in the first part of the study, illustrated in figure 1.

Figure 1
The Explanatory Sequential Design
 Source: Adapted from Creswell & Clark (2011)



All participants accessed the study survey through a secure web link where they gave consent to take part. Once data collection was completed for the quantitative part of the study, seven participants who scored above clinical cut-off on the AQ10 (6 or above) were invited to take part in the qualitative side of the study. This took form as a semi-structure interview via zoom (with one participant this took place over the phone) and they received a £15 amazon voucher to thank them for their time. Interviews were transcribed ahead of analysis and participants were given a pseudo name. At the end of both parts of the study, participants received a debrief sheet which included online counselling and support resources. Qualitative data collection and analyses was carried out on the framework of reflexive thematic analysis (TA), guided by six steps as recommended by Braun and Clarke (2022) which are outlined in table 1 below.

Table 1
Outline of 6 phase reflexive TA. (Adapted from Braun & Clarke, 2022)

Phase 1	Familiarisation with the dataset
Phase 2	Initial coding
Phase 3	Generating initial themes.
Phase 4	Developing and reviewing themes
Phase 5	Refining, defining and naming themes
Phase 6	Writing up

3.1 Participants

Adults who had previously self-harmed and/or were still self-harming were eligible to take part. Respondents who were ministry of justice individuals, subject to a restraining order, were excluded from taking part. Only one respondent was excluded due to this criterion. 225 started the survey. 55 of those did not pass the screening questions, assessing for immediate risk. They were redirected to the termination page, and they were sent an automated email explaining why the survey had terminated for them, along with weblinks and phone numbers for support charities. 10 were excluded from the analyses as they had a confirmed diagnosis of ASC, to remain the focus of this research on undiagnosed individuals. Therefore, the final sample included 111 adults who were (or had been) self-harming. Demographics for all participants is provided in table 2.

Although self-harm has been defined here by referring to NICE's definition, participants were not given specific criteria around a self-harm definition. This was based on their own experience of self-harm although the questionnaire did include questions around how they were or had been self-harming.

The exclusion criteria were decided upon as it could impact the responses on their questionnaire which may be due to their current situation rather than a stable state over time. In addition, it was felt that it was unethical and not safe to include individuals fitting any of the exclusion criteria. To avoid poor ethical standards by excluding participants who wanted to take part, the exclusion criteria were discussed with the service user group who agreed with the proposed exclusion criteria for best ethical practice.

Table 2*Sample demographics*

Variable		N	%
Age	18-25	44	39.6
	26-35	46	41.4
	36-45	16	14.4
	46-55	4	3.6
	56-65	1	0.9
Gender	female	99	89.2
	male	6	5.4
	Non-binary	6	5.4
Mental Health Disorder			
	Yes	93	83.5
	No	18	16.5

3.2 Study Measures

A questionnaire was developed using Qualtrics and participants accessed the questionnaire via a weblink. The questionnaire included all items from the AQ10 and ISAS I&II. The questionnaire also included questions around participant demographics and mental health diagnoses. SPSS 28.0 and Nvivo 12 were the software used for the analyses.

The AQ10 is a 10 item self-report questionnaire which has been validated in earlier studies (Allison et al., 2012; Booth et al., 2013) and can indicate traits of ASC. The AQ10 is also the recommended tool to screen for autism by NICE (2012).

All analyses were carried out using SPSS 28.0, beginning with a preliminary analysis. The data set was scanned for missing data and outliers. Frequencies and demographics were explored in forms of tables, charts, and graphs. AQ10 scores were checked for normal distribution to ensure the data met analytical assumptions.

4 Results

4.1 Part 1 – quantitative results

Total mean AQ10 score for the sample was calculated and compared to that of the general population (Lundin et al., 2019) as shown in table 3.

Table 3

Mean AQ10 scores

	N	Mean	SD	SD Error Mean
Current data set	111	5.02	2.199	0.209
General population	47,742	1.95	38.843	0.178

A one-sample t-test was conducted to compare the AQ10 scores for the self-harm sample and the general population. The results of the t-test are reported in table 3.

There was a significant difference in scores for our sample ($M = 5.02$, $SD = 2.1999$) and the general population ($M = 1.95$, $SD = 38.843$); $t(110) = 14.699$, $p = <.001$).

Table 3

SPSS output for one-sample t-test comparing mean difference in AQ10 scores

One-Sample Test

Test Value = 1.95							
	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
AQ10 score	14.699	110	<.001	<.001	3.06802	2.6544	3.4817

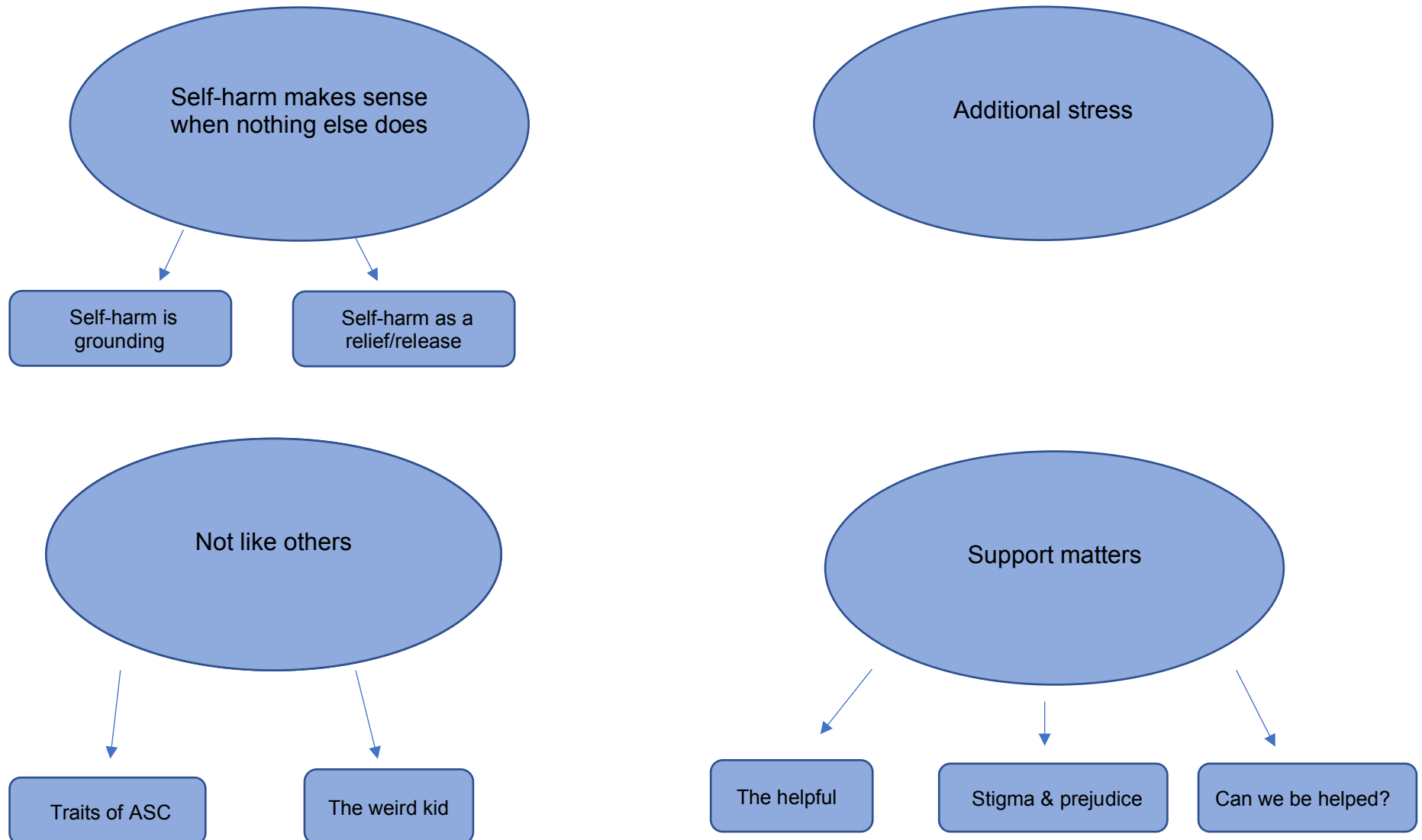
The range of scores on the AQ10 is 0 – 10 with scores of 6 and above indicating traits of ASC which should be further investigated and consider full assessment for ASC. Within the sample ($n=111$), 43.24% ($n=48$) scored above the clinical threshold for ASC and 56.76% ($n=63$) scored below.

4.2 Part 2 – qualitative results

The qualitative analyses resulted in the following themes and subthemes as illustrated in figure two.

Figure 2

Final themes and subthemes produced through reflexive TA



4.2.1 Theme one: Self-harm makes sense when nothing else does

The story told by the participants shaped this theme in two ways. One angle was that self-harm was something good, a relief, something tangible and concrete that they could rely on to ground them and, interestingly, to make them feel alive. One participant described self-harm as a sense of security. Several participants reported that self-harming had prevented them from attempting suicide. A contrasting angle to this theme was also picked up. Participants described self-harm as negative and something they should not be doing, however, this was predominantly based on other people's belief around it and cultural/societal norms/expectations, rather than contradicting their feelings and sense of self-harm being protective and comforting. The extracts are examples of quotes linked to theme one.

"Once I'd cut myself, almost instantaneously the desire to die stopped." Sally

"It became more of a way to deal with everything, not just the emotions of what had happened." Lucy.

4.2.1.1 Subthemes to theme one: Self-harm is grounding, self-harm as a relief/release

Interestingly, in this theme participants spoke about self-harm as being a helpful tool. Further to this notion, they specifically made references to self-harm as a grounding experience that was impulsively acted upon.

"I've described self-harm to people before, and it's like the extreme version of grounding. I felt reconnected with being alive, weirdly. It gave me some hope that I wouldn't always feel as bad as I felt." Sally.

"It calmed down all the emotions that I was feeling before that and the reason I was doing it. Afterwards it felt like nothing else mattered other than what I was currently doing and the feelings that I was feeling. It's a bit like a release from everything else." Lucy.

"It was just such an immense relief; I could feel something." Sally.

Theme one and its subthemes indicate that self-harm is a helpful tool that is often used without much emotion attached to it. Anna described self-harm as part of her tool kit and compared it very specifically to that of mindfulness, which is frequently recommended particularly for anxiety (NICE, 2020). Perhaps Anna, and others who have traits of ASC, find engaging in mindfulness, which requires some imagination and cognitive flexibility, unhelpful or difficult to fully engage with to feel beneficial. In contrast, self-harm is immediate, concrete, can be carried out alone with no need for communication and is rather straight forward. Sally described it as feeling *something*. As opposed to feeling nothing or not being able to make sense of emotional turmoil, whether internal or external (or both simultaneously). When communicating one's feelings is too difficult, when reaching out for help seems impossible, self-harm soothes, contains, and grounds them. Self-harm functions like a reliable and reassuring 'reset' button.

4.2.2 Theme two: Not like others

The label for this theme, 'not like others', was chosen as it resonated with the initial background research into the topic and the hypothesis that if the participants have traits of ASC, especially on the level that would clinically suggest the person may have ASC, they would have had these traits since they were young children. However, never receiving a formal diagnosis which may have been able to explain some of the differences they felt in relation to their peers and perhaps gain a better understanding, they just felt 'unlike the others'. In addition, many of the codes fitted under this theme although they appeared to brench into two stands and after numerous changes and moving codes around, as well as changing the themes, theme two ended up with two subthemes.

"I don't know. I have always not been able to fit in. Like other people just naturally, if I have a conversation, then I will analyse it and analyse it for ages after and beat myself up about it. It's more stressful to have a conversation than it isn't to have a conversation". Alex

"[...] but I need to learn how to do them or how they are played out. There's a lot of learning how to be like everybody else. Even to adulthood, I will still do that." Anna.

"[...] So, I made like a very conscious effort to start fitting in." Simone.

"I feel like I still struggle with stuff what I struggled with as a child." Emma (telling researcher that she still feels different to others, now as an adult).

The extracts chosen support the hypothesis that participants had felt different to their peers both as children and in adulthood. The following two subthemes will illustrate how this directly point towards having traits of ASC or indirectly through their experiences of being 'the weird kid'.

4.2.2.1 Subthemes to theme two: Traits of ASC, The weird kid

The chosen extracts below illustrate how participants' experiences could be linked to traits of ASC in addition to the extracts supporting the main theme above. Several extracts were chosen to support this subtheme as their stories are crucial to this research, addressing the research questions and hypotheses.

"And then probably when I got to about 10 or 11, I started to become more self-conscious about being like the outside weird kind of kid. [...] And they would be like oh she's actually really weird and different." Simone.

"Yes. People have always said that I've been different, but I don't know what they mean by that." Emma.

The quotes above are clear examples of how socialising and communication has been extremely difficult for the respondents throughout their lives. There are also good examples of their attempts to camouflage and fit in. Simone's description of copying and how maintaining this became a struggle, especially as she was not sharing the same interests as her peers, may indicate difficulties with theory of mind.

This subtheme further supports theme two, 'not like others', by emphasising that these individuals have always felt different, making it more plausible that they have ASC as it is a developmental condition. Furthermore, it highlights, as did the above subtheme, potential reasons, and a better understanding of why this population may be more likely to reach for self-harm as a coping tool.

Sally spoke about a subtle difference that was nonetheless noticed by her peers. This could imply that the difference noticed was in fact that she had traits of ASC. These women are high functioning and may have lived with and experienced traits of ASC different to the more traditional beliefs of what ASC looked like (particularly when compared to males with ASC). Hence it was not picked up as ASC, yet the extracts conclude that they did indeed feel different, and this was noticed by their peers too.

4.2.3 Theme three: The additional distress

The extracts below support the theme of there being additional stress and difficulties for the interviewees, arguably more so than in the general population. Furthermore, the extracts may tell a story of how the participants deal with such stress.

“Like other coping strategies. I was in a really bad place, and it was just a case of the other coping strategies didn’t work and didn’t really have the effect anymore [...].”

Emma.

“I had trauma years ago, but nothing had ever surfaced really from that, and I’d never talked to anyone about it.” Leila.

“It felt like the entire world was the other side of about 3 metres of Perspex, all around me, and I had no connection with it.” Sally.

4.2.4 Theme four: Support matters

This theme was shaped as many of the codes were around support. Some indicated very good and helpful support and how that had a positive impact, some indicated unhelpful and damaging ‘support’ and finally there was an indication of participants’ own belief around the ability to being helped. All three subthemes may indicate a feeling of being misunderstood, to the extent where participants may have felt that they were unable to be helped (subtheme: Can we be helped?). Crucially, the helpful support has seemingly had a noteworthy positive impact. What has made these professionals/friends connect better than others? Finally, ‘the unhelpful’ which seemed a generous coined term for the theme as the stories told came across as very damaging.

“It felt like, “I’m here if you need me.” I think that’s the way the majority of professionals and my family and friends have been. It’s even, if they don’t necessarily understand it themselves, wanting to understand it and wanting to care. Sometimes even just pretending, even if they don’t understand it. Pretending that they care is really helpful.” Lucy.

4.2.4.1 Subthemes to theme four: The helpful, Can we be helped?, Stigma and prejudice

All seven participants talked about support that they had found helpful which included support from friends, family, and professionals.

“The experience at the GP is definitely, when I went to see the nurse, I would 100% ask to go see her again if I ever had any concerns [...] The community mental health team has been really good. They have been quite supportive with it. I’ve never really had a bad experience with them. I’ve also got a therapist and she’s lovely about it. I’ve never had a bad experience.” Lucy.

“Yes. I suppose the one that stands out for me was, quite simply, “People aren’t going to feel sorry for you if you do this. You need to find something else.” Literally, I was told, “Cutting yourself isn’t going to make people feel sorry for you.” Cop on, essentially. Just the blunt and the sharpness of that absolutely shook me because, in my mind, it was like you can’t speak to me like that. But yes. It was like. [...] Then, he further, went on and was like, “People are very manipulative, who do this. What is it that you want from people?” All of this was just being thrown at me. I was 19 at the time [...]” Anna.

“I have had to go and get stitches a couple of times at A&E. That’s where the more bad experience with professionals comes in. You’re made to feel like you’ve done it to yourself, so you don’t really deserve to get, I know part of that is probably my own mind making me feel that way. Sometimes the looks you get, it’s like, “All these people are here because they’ve not asked for it. Whereas you’ve asked for it and done it to yourself.” You feel a bit more judged when you’ve got to go somewhere where people are working and trying to get loads of patients done at once. They’re more like, “You did this to yourself, why should I help you?” It feels like you’re looked at like a drug addict or something. Where, you’re doing it to yourself and it’s not as worthy of help and you’re more brushed off.” Lucy.

The majority of participants’ descriptions around support were positive. When support had not been helpful, participants were more inclined to internalise the reasons for this and question their ability to be helped. Again, this could indicate that help had failed due to their difficulties with communication, such as required in traditional psychotherapy (whether individual or group settings) and they blamed themselves for this failure.

4.3 Integrating quantitative and qualitative data

The quantitative part of this research suggested that individuals with traits of ASC were more likely to self-harm when compared to the general population. The qualitative part formed stories, shaped by the participants and the researcher, which were represented as themes. The stories, at least to some extent, revealed why they self-harmed. Their stories also expressed that they felt different to others and this feeling of being different had also been present in childhood. Their responses clearly indicated traits of ASC, despite the respondents not having a diagnosis of ASC. This too was evident in the qualitative part where the participants shared a story of 'always having felt different'. The vast majority of respondents were females which supports previous evidence, suggesting that the reported male/female ratio to be inaccurate (Rynkiewicz et al., 2016). The sample in this study was predominantly females who in the interviews gave clear accounts of how they had used camouflaging and copying strategies throughout their lives, consistent with previous findings in general in individuals with ASC but particularly in females with ASC (Bargiela, 2016; Lai and Baron-Cohen, 2015). The data from part one distinctly fits in with the data produced from part two of the study. This was further supported by the theme 'support matters' with the sub-theme 'can we be helped' where the interviewees felt cut-off and different (due to their traits of ASC) and therefore, at times, struggled with the help offered which made them feel they were 'unhelp-able', making it harder to reach out for help. Questions asked in the interview around support, may help for future clinical implementations and to better understand what is helpful and what is unhelpful for this group whilst noting how this may be very different from other groups, presenting with same or similar issues, such as self-harm.

5 Discussion

The primary research aim for the quantitative strand was to confirm (or reject) the hypothesis that individuals who self-harm are more likely to have traits of ASC. This was tested by conducting a one-sample t-test to compare the self-harming research sample (N = 111) to the general population, in this case by using a large Swedish cohort data set (N = 47472). The one-sample t-test demonstrated a significant difference between the two means, indicating that people who self-harm are significantly more likely to have traits of ASC. 43.24% of the sample scored above the recommended clinical cut-off on the AQ10 (NICE, 2012).

The interviews revealed that the seven respondents had struggled with socialisation and communication throughout their lives – key features of ASC. They frequently exercised camouflaging and copying behaviours which they had engaged in since childhood. These

findings support the quantitative findings from part one of this study, that the sample had a significantly higher mean AQ10 score compared to the general population.

The interviewees shared many positive stories of support, however they also shared many accounts of stigmatised, unacceptable behaviours from professionals when they had reached out for help due to self-harm. This may have further negatively impacted individuals with traits of ASC as they gave accounts of internalising such negative experiences, wondering if they are 'unhelp-able', rendering it unlikely to reach out for help again.

Struggles with mental health is common, and perhaps in more recent years the rise in awareness, with the aim to reduce stigma and improve outcomes, has seen people reach out for help more. Our society is becoming more accustomed to accepting that most people go through periods where they struggle with their mental health. In the current sample nearly 84% (N = 93) had a diagnosis of a mental health disorder or developmental disorder (not including ASC). This is substantially higher than the expected 25% of the UK population who will be anticipated to experience some problems with their mental health at some point in their life (Mind, 2017). For the 7 participants who were also interviewed, 2 reported to not have any mental health or developmental disorder diagnosis, and 5 reported that they did have such a diagnosis. There is a possibility of this being particularly high in this population due to their traits of ASC and never receiving a diagnosis as traits of ASC may have further impacted and exacerbated poor mental health. Theme three clearly demonstrated that these women had always felt different, but not understood why. All mental health conditions impact each person in an individual way, however, it appears to be categorised in some sense to make appropriate guidelines for best clinical practice. The extracts indicated that these generalised interventions and approaches may not work very well for this population.

6 Limitations

The sample was predominantly made up of females and this was a limitation as much as a strength. The researcher had not anticipated such a gender bias in the sample however, considering evidence suggesting missed and misdiagnoses in females (Hosozava et al., 2021) as well as females with traits of ASC frequently engaging in camouflaging behaviours (Cassidy et al., 2018b), the bias found in this sample is important knowledge and it further supports the theories and findings in the existing evidence base. Nonetheless, the findings would have been more generalisable had the sample had a more even gender split.

The study made use of a large Swedish cohort study to compare the mean AQ10 scores of the general population. This was not ideal, despite the fact that a UK sample may not have been more representative of the sample in the current study as participants may have been from all parts of the World.

7 Future research

More empirical evidence is needed to investigate prevalence of individuals with traits of ASC and how this impacts their life in general. Research should seek out to explore specifically how a diagnosis could have a direct positive (or negative) consequence for this group and focussing on their views and experiences by including qualitative data.

Exploring psychologists' (and other mental health professionals') attitudes towards a diagnosis of ASC (in childhood and adulthood) and if they consider recognising traits of ASC in non-diagnosed individuals important, would be of great interest to research.

8 Conclusion

People who self-harm score significantly higher on the AQ10 compared to the general population. Research suggests this puts them at higher risk of suicide both for having high traits of ASC and by engaging in self-harm (Cassidy et al., 2018b; Hedley & Uljarevic, 2018; Hirvikoski et al., 2016). Yet, by not being aware that they may have ASC they are unable to understand the daily difficulties they experience, living in a world where they feel like they do not fit in. They engage in exhausting camouflaging and copying behaviours as well as self-harming.

It is very plausible that these individuals with traits of ASC, representing a significant proportion of the self-harming population, need a different approach to deal with their self-harm as well as any other emotional distress they may be experiencing. In order to offer that, we must first detect these traits, so we as clinicians, can adapt our approaches so they are helpful to the individuals they are aimed for.

9 Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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