

***Doctorate in Professional Educational,  
Child and Adolescent Psychology (DEdPsy)***



**Camouflaging strategies used by girls with autism in  
specialist educational provisions: perspectives of girls,  
their parents and their educators.**

**Joanne Halsall**

Institute of Education, University of London

A thesis submitted in partial fulfilment of the requirements of the Doctorate in  
Professional Educational Child & Adolescent Psychology.

## **Acknowledgements**

I would like to thank the people who have supported and contributed to this research. Thank you to my research supervisors, Dr Laura Crane and Dr Chris Clarke, for giving your time and expertise so generously. My thanks must also extend to my TEP and EP colleagues, my placement supervisor, Dr Maryanne Woodland and university tutor, Dr Melernie Meheux. I feel privileged to be joining such an amazing profession.

This research would not have been possible without the involvement of the girls, their parents and school staff that made me so welcome. Thank you for your enthusiasm and commitment to sharing your experiences.

To my family and friends, most especially my mum and dad, thank you for the love, support and many apostrophes that have been corrected. And my sons, Jack and Adam, you have kept me positive and made me smile throughout, you are my everything.

I would like to dedicate this work to my mum, who paused her life so I could achieve my dreams. Thank you for everything you do, every meal you have made, every school journey completed. We did it together.

### **Student declaration**

I hereby declare that, except where explicit attribution is made, the work presented in this thesis is my own.

Word count (exclusive of appendices and references): 35,636

## **Abstract**

Autistic girls' heightened social motivation and associated social coping strategies, such as camouflaging, mean they are less likely to receive appropriate support in mainstream schools. These challenges may intensify during adolescence, when the complexity of social interaction and demands increase. This period of social development coincides with the established challenges for autistic pupils transitioning into secondary education. This demanding stage of autistic girls' development is suggested to result in an increase of social coping strategies, with girls trying to blend in and avoid negative consequences of being identified as different. Camouflaging of autistic behaviours is associated with several negative impacts, including exhaustion, anxiety and identity uncertainty. Despite this, no research has considered whether pupils accessing mainstream school through a specialist resource base use camouflaging strategies; and, if so, how these present and impact upon pupils. A significant aspect of Educational Psychologists' casework involves supporting pupils with autism, so developing knowledge of best practice to support autistic girls, who are an under-researched group, is essential.

This study adopted a multi-informant approach to examine the camouflaging strategies used by autistic girls within resource bases attached to mainstream secondary schools. Semi-structured interviews were conducted with eight girls, their parents and educators to triangulate the girls' camouflaging experiences. Inclusive methodological approaches were used within the interview process to support the girls to share their experiences. To characterise the profile of the girls and their school contexts, observations were completed (social time, mainstream and resource base lessons) alongside measures of autism symptomology, quality of friendships and cognitive ability.

Data were analysed using thematic analysis and four themes were identified: (1) inconsistencies and contradictions in camouflaging, (2) camouflaging to overcome relationship challenges, (3) camouflaging learning challenges (4) consequences of camouflaging.

The themes revealed the challenges the girls experienced when attempting to hide their autism and fit within the mainstream and resource base school contexts. These challenges had significant impacts on the girls' relationships and learning, and consequences for their mental health.

## **Impact statement**

The motivations, strategies and consequences of camouflaging for autistic adults have been examined in recent research. This has highlighted the significant negative costs of camouflaging, including exhaustion, anxiety and depression. The small body of research examining the camouflaging experiences of autistic adolescents reported similar consequences to that in the adult literature. However, this research is limited by its focus on autistic adolescents attending mainstream schools. The current study extends the existing research base by examining camouflaging strategies used by autistic adolescent girls attending a resource provision attached to mainstream school. A unique aspect of this study was the inclusion of multiple stakeholder perspectives, bringing together the voices of autistic girls, their parents and educators.

The research contributes four novel findings to the existing academic literature and to our understanding of camouflaging in autism. The first novel contribution of this study was that the girls' camouflaging behaviours varied according to their school context, with increased camouflaging behaviours noted in the mainstream environment. A second novel contribution was the identification of persistent inconsistencies and contradictions that characterised the girls' camouflaging behaviours. Specifically, the strategies used were inflexible and shallow, which made them vulnerable to breaking down. A third novel contribution was the identification of challenges associated with social belonging experienced by the girls attending the resource base. The girls' camouflaging attempts were not sophisticated enough to facilitate successful connections with their mainstream female peers, however they were motivated to separate themselves from the resource provision, resulting in isolation. A final novel contribution was that all the girls were strongly motivated to camouflage their learning challenges. This was especially prevalent in the girls who had been identified with learning needs. The combination of the girls' attempts to camouflage their learning needs, alongside the broader consequences of camouflaging such as exhaustion and anxiety, resulted in longer term negative

impacts on learning. The findings will be disseminated to an academic audience via a peer reviewed publication.

There are several professional implications arising from this research. First, it is essential that there is increased awareness raising and training for education professionals, including EPs, school staff and multi-disciplinary colleagues. To this end, the findings will be disseminated to these groups via publications and presentations. This will enable continued professional attention to camouflaging, and interventions aiming to support autistic girls to achieve and flourish both academically and socially within school. Second, direct support using consultation and person-centred planning approaches will facilitate schools to implement evidence-informed practice to provide individualised interventions for autistic girls. Presentations outlining the research and professional implications have been completed in several schools with autism specialised resource bases, as well as directly to EP services. Going forward, these will be extended by providing a 'school friendly' summary of the study outlining key information.

## Table of Contents

Acknowledgements.....	2
Abstract.....	4
Impact statement .....	6
<b>1. Introduction .....</b>	<b>15</b>
1.1 Bio-ecological Systems Theory .....	16
1.2 Autism definition and prevalence .....	19
1.3 Gender prevalence and presentation .....	19
1.4 Camouflaging.....	24
<i>Cognitive theories informing camouflaging research .....</i>	<i>25</i>
<i>Theoretical model of camouflaging .....</i>	<i>27</i>
<i>Gender differences in camouflaging .....</i>	<i>28</i>
<b>2. Literature review .....</b>	<b>30</b>
2.1 Research examining autistic adults' camouflaging.....	30
2.2 Educational provision .....	33
<i>Inclusion legislation.....</i>	<i>34</i>
<i>Inclusion for autistic pupils .....</i>	<i>34</i>
<i>Specialist autism resource bases.....</i>	<i>36</i>
2.3 Research exploring camouflaging strategies for CYP .....	39
<i>Camouflaging for pupils in mainstream schools.....</i>	<i>39</i>
<i>Research in specialised school settings including resource bases .....</i>	<i>42</i>
2.4 The role of EPs .....	45
<b>3. Methodology.....</b>	<b>47</b>
3.1 Chapter Summary.....	47
3.2 Approach to research.....	47
<i>Ontological and epistemological considerations .....</i>	<i>47</i>
<i>Reflexivity.....</i>	<i>47</i>
3.3 Research design .....	49
3.4 Participants .....	50
<i>Recruitment of participants .....</i>	<i>50</i>
<i>Inclusion Criteria .....</i>	<i>51</i>
<i>Pupil participants.....</i>	<i>52</i>
<i>Parent participants .....</i>	<i>55</i>
<i>Educator participants .....</i>	<i>55</i>
3.5 School contexts.....	56
<i>School one .....</i>	<i>57</i>
<i>School two .....</i>	<i>57</i>
<i>School three.....</i>	<i>57</i>
3.6 Materials .....	56
<i>Qualitative measures .....</i>	<i>58</i>
<i>Semi-structured interviews.....</i>	<i>58</i>
<i>Structured Observations .....</i>	<i>62</i>
3.7 Qualitative data analysis .....	62
<i>Transparency, credibility and trustworthiness .....</i>	<i>65</i>
3.8 Procedure .....	65
Pilot.....	65



Visual scaling activity .....	66
Interview schedule .....	66
Observation schedule .....	66
Participant procedure .....	67
3.9 Ethics .....	69
Informed consent .....	69
Sensitivity of topic .....	70
<b>4. Results .....</b>	<b>71</b>
4.1 Chapter Summary .....	71
4.2 Theme 1: Inconsistencies, contradictions and conflicts in attempts to camouflage .....	72
Subtheme - Self-developed and adult led camouflaging strategies .....	74
Subtheme – Attempts to camouflage immature interests.....	76
Subtheme – Different camouflaging in different contexts.....	77
Subtheme – Embracing autistic identity, resulting in inconsistencies in camouflaging.....	78
Researcher reflections .....	80
4.3 Theme 2: Using camouflaging to overcome challenges in making and maintaining friends.....	81
Subtheme – No Girl’s Land. Unsuccessful camouflaging, resulting in the girls not fitting anywhere .....	82
Subtheme – Compatible camouflaging demands in friendships with SEN pupils. ....	84
Subtheme – Seeking safe and controllable relationships as a camouflaging strategy .....	85
Researcher reflections .....	88
4.4 Theme 3: Camouflaging learning needs and the challenges of learning and inclusion .....	89
Subtheme – ‘She doesn’t like feeling stupid.’ Attempts to camouflage learning challenges .....	90
Subtheme – Dependence on adults to camouflage challenges in all aspects of learning and school life. ....	92
Subtheme – ‘That’s her safe space’. The benefits of the resource base..	93
Researcher reflections .....	96
4.5 Theme 4: Consequences of camouflaging on social interaction, learning and mental health .....	97
Subtheme – Late diagnosis and missed opportunities due to camouflaging.....	98
Subtheme – Immediate impacts of camouflaging (exhaustion, anxiety and emotional distress).....	100
Subtheme – Long-term consequences of camouflaging (isolation, underachievement and conflict of identity).....	101
Researcher reflections .....	103
<b>5. Discussion.....</b>	<b>104</b>
5.1 Summary of chapter and main findings.....	104
5.2 Research question 1 .....	105
Research question 1 summary .....	109
5.3 Research question 2 .....	110

<i>Research question 2 summary</i> .....	115
5.4 Strengths and limitations of the current study .....	116
<i>Strengths</i> .....	116
<i>Limitations</i> .....	117
5.5 Future research.....	119
5.6 Implications for EP practice.....	121
<i>Link to Bronfenbrenner's (2005) bio-ecological model</i> .....	121
<i>Recommendations for EP practice</i> .....	123
<b>6. References</b> .....	<b>130</b>
<b>7. Appendices</b> .....	<b>150</b>

## List of Appendices

		Page
Appendix A.	Literature search	150
Appendix B.	Background measures	151
Appendix C.	Descriptions and researcher reflections on school contexts	154
Appendix D.	Visual Scaling Cards	156
Appendix E.	Girls' responses on Visual Scaling Camouflaging	159
Appendix F.	Girls' interview schedules	161
Appendix G.	Educator interview schedules	162
Appendix H.	Parent interview schedules	164
Appendix I.	Observation schedule development and sample	166
Appendix J.	Sample of coded transcribed interviews: girl, parent and educator	174
Appendix K.	Qualitative credibility	181
Appendix L.	Girls' information and consent form	183
Appendix M.	Educator information and consent form	188
Appendix N.	Parent information and consent form	192
Appendix O.	Ethical considerations	196

## List of Tables

		Page
Table 1.	Pupil participant details	53
Table 2.	Pupil scores on background measures	54
Table 3.	School demographics	56
Table 4.	Thematic analysis process	64

## List of Figures

		Page
Figure 1.	Application of Bronfenbrenner's bio-ecological model (2005)	18
Figure 2.	Researcher positioning	48
Figure 3.	Participant recruitment process	51
Figure 4.	Example of adapted visual scaling cards	60
Figure 5.	Data collection procedure	67
Figure 6.	Thematic map	71
Figure 7.	Theme 1: Inconsistencies, contradictions and conflicts in attempts to camouflage	72
Figure 8.	Theme 2: Using camouflaging to overcome challenges in making and maintaining friends	81
Figure 9.	Theme 3: Camouflaging learning needs and the challenges of learning and inclusion	89
Figure 10.	Theme 4: Consequences of camouflaging on social interaction, learning and mental health	97
Figure 11.	EP implications	124

### **List of Acronyms and Abbreviations**

CAMHS	Child and Adolescent Mental Health Services
CYP	Children and Young People
DfE	Department for Education
EHCP	Education, Health and Care Plan
EP	Educational Psychologist
EPS	Educational Psychologist Service
GCSE	General Certificate of Secondary Education
LA	Local Authority
LSA	Learning Support Assistant
PCP	Person Centred Planning
PPCT	Process, Person, Context and Time (Bronfenbrenner, 2005)
SEND COP	Special Educational Needs and Disability Code of Practice
TA	Teaching Assistant
UK	United Kingdom

## Introduction

The purpose of this study was to examine whether adolescent girls with autism<sup>1</sup> use camouflaging strategies to navigate the social experience of specialist resource bases<sup>2</sup> within mainstream secondary schools. Camouflaging strategies are described by Tierney et al. (2016) as sophisticated approaches used by autistic girls to present as socially competent and hide difficulties associated with their autism. These camouflaging strategies are a common aspect of everyday life, and research highlights the importance of these skills for individuals with autism to access improved social outcomes (Hull et al., 2017).

The adolescent<sup>3</sup> period is a time of social complexity, during which social coping strategies become essential. However, there is limited research that explores the strategies used by adolescent girls with autism in school. Furthermore, camouflaging strategies are considered to be more evident in autistic females who do not have co-existing learning difficulties, as this group are thought to have the cognitive awareness to recognise and apply strategies to conceal their needs (Dworzynski et al., 2012; Kreiser & White, 2014). This has resulted in minimal research that examines coping strategies used by autistic girls attending specialist educational settings, and a lack of clarity around the nature and consequences of such strategies for these girls.

Using Bronfenbrenner's (2005) bio-ecological model as a framework, this research examined the camouflaging skills used by autistic girls attending resource bases and how these interact with the different systems in the girls'

---

<sup>1</sup> Identity-first language (i.e., autistic girls), relative to person-first language (i.e., girls with autism), is preferred by many, but not all, people on the autism spectrum (Kenny et al., 2016). Within this study, both person-first and identity-first language will be used, to respect the diverse views of individuals on the spectrum.

<sup>2</sup> Specialist resource provisions (also known as resource bases) are defined by the Department for Education (2015a) as providing specialist facilities attached to a mainstream school for a small number of pupils who have an Education, Health, Care Plan (EHCP). These resource provisions tend to specialise in a specific area of need, such as autism. The amount of time pupils spend in mainstream varies between provisions.

<sup>3</sup> The period of adolescence is often defined as beginning at the onset of puberty. However, specific age ranges vary between different research papers (Blakemore, 2018). Within this study I will refer to adolescence as the period during which a child is in secondary education (11 to 18 years).

environment. The girls' experiences and perspectives around camouflaging were gathered, alongside the views of their parents and educators. This multi-informant approach was important for ensuring an in-depth understanding of the complexity of camouflaging and highlighted the wider systemic and contextual factors that influence this. This research can therefore be used to inform Educational Psychologists (EPs) and school provisions regarding the camouflaging skills used by autistic girls within resource bases, and the consequences of these strategies on the girls' learning and wellbeing.

Within this chapter, I review Bronfenbrenner's bio-ecological systems theory (2005), which provides a context for understanding camouflaging across the different systems within the girls' environments. Next, I consider the constructs around autism and the factors that inform gender prevalence and presentation. I then evaluate research into the different camouflaging strategies used by girls with autism. Finally, I review the research that considers different educational provisions available to pupils with autism, before exploring the camouflaging strategies that autistic girls use in schools and the role of Educational Psychologists (EPs) in supporting the girls.

### **1.1 Bio-Ecological Systems Theory**

Bronfenbrenner's (2005) bio-ecological model provides a framework for examining the systems that influence a person's development and behaviour. Bronfenbrenner's model comprises four principles, Process, Person, Context and Time (PPCT), and proposes a framework for examining each principle and their interactions with each other.

This model was developed from Bronfenbrenner's (1979) previous Ecological Theory of Development, which suggested that around each young person are complex and interlocked systems that interact with each other and impact the individual's development. These relationships are reciprocal, recognising that the individual influences the environment and, in turn, the environment influences the individual. The microsystem is the closest context to the individual, including their immediate environment such as family, school and peers. The mesosystem explores the interactions within the microsystem. The exosystem contains more distant contexts that do not interact directly with the



young person, while the macrosystem incorporates factors at the broader cultural and societal level.

Within Bronfenbrenner's (2005) updated model, these interacting systems are reflected in the context principle, positioning the impact of each system alongside the influence of individual factors and time. With regard to the current study, the interactions between the autistic girls and the systems around them would be referred to as proximal processes. Bronfenbrenner proposes that the more proximal, complex and continuous the experience of specific environments, the more likely that they will influence development (Bronfenbrenner, 1989).

Bronfenbrenner's updated model recognises the impact of individual factors within the person's characteristics. This perspective highlights that the autistic girls within my sample would be influenced by their personal characteristics and resources, including biological and genetic factors, social, emotional, cognitive and material resources.

The final aspect of Bronfenbrenner's updated model recognises the impact of time on development and how this interacts with each of the other systems. At an individual level, my study references girls during adolescence, and therefore consideration is required of the impact that this period of development has on the girls. Examining the daily experiences of the girls within their resource base and wider mainstream school will be essential, alongside an exploration of the process of autism identification, diagnosis and support that the girls experienced before attending the resource base. Figure (1) exemplifies the systems explored within this research.

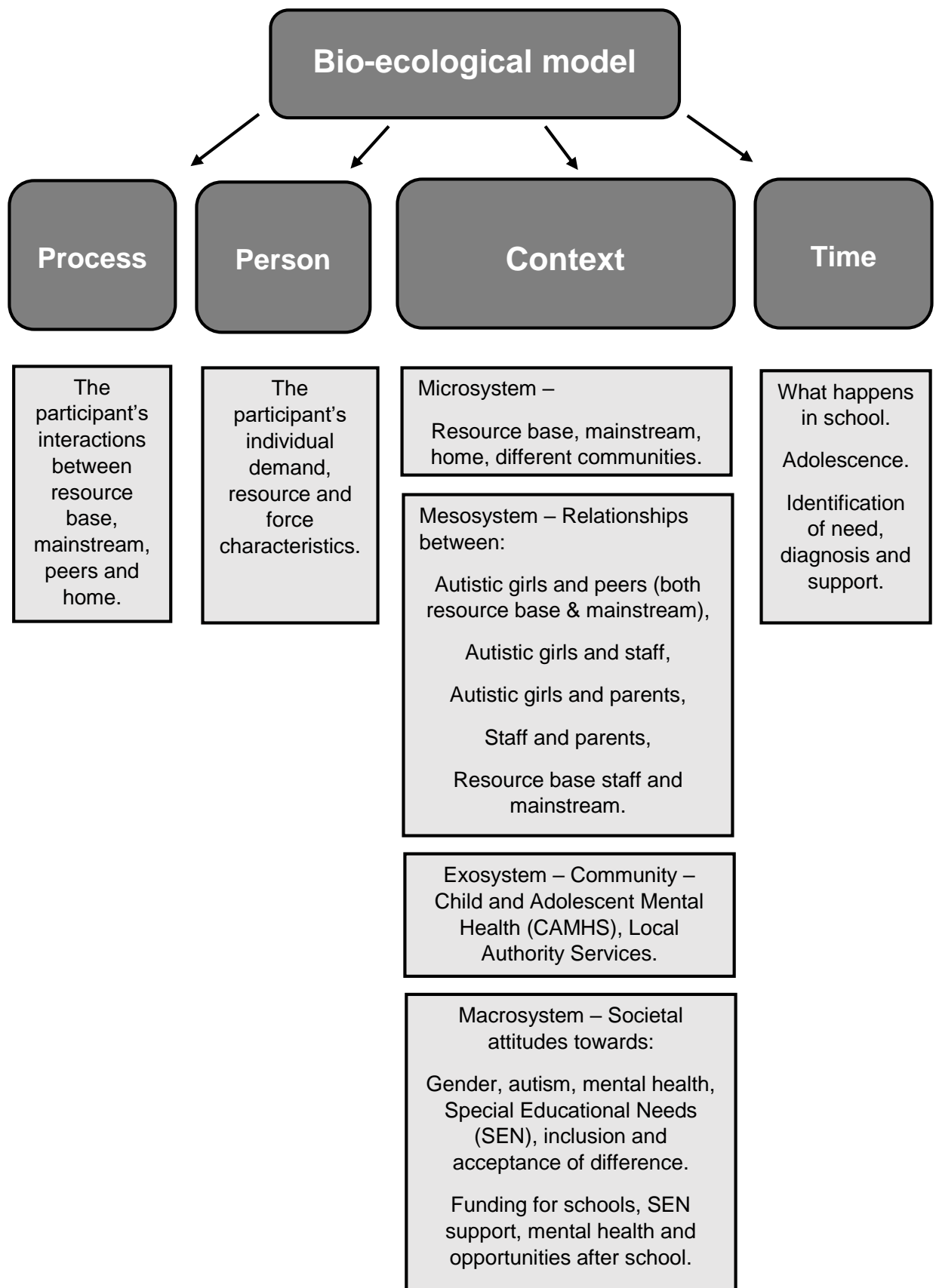


Figure 1. The application of Bronfenbrenner's bio-ecological model (2005)

## **1.2 Autism definition and prevalence**

Autism Spectrum Disorder (henceforth, autism) is a neurodevelopmental condition characterised by difficulties in social interaction and communication, as well as the presence of restricted and repetitive patterns of behaviour, interests and activities. These difficulties are expected to be present from early childhood and continue to impact everyday behaviour throughout the individual's lifespan (American Psychiatric Association, 2013). The umbrella term autism is highly heterogeneous and includes a wide range of presenting needs, reflecting the individual differences in verbal, cognitive and adaptive (daily living) skills seen in different autistic people. Changes to the autism diagnostic criteria, to incorporate individuals who are more verbally and cognitively able, has resulted in the prevalence of autism rapidly increasing over the past fifty years, with current estimates suggesting that approximately 1% of the population meet the criteria for autism (Baird et al., 2006; Brugha et al., 2011).

## **1.3 Gender prevalence and presentation**

Since first documented in the 1940s (Asperger, 1944; Kanner, 1943), autism has been predominantly considered a male condition, with a recent meta-analysis suggesting a male prevalence bias of 3:1 (Loomes et al., 2017). This contrasts from earlier estimates that reported much broader ratios of 2:1 for those with co-existing intellectual difficulties through to 16:1 for cognitively able individuals (Baird et al., 2006; Fombonne, 2003, 2005; Holtmann et al., 2007). A number of sociocultural factors are thought to influence the gender<sup>4</sup> discrepancy in autism, with some researchers suggesting that females are being under-identified and under-diagnosed (Attwood, 2007; Lai et al., 2017).

---

<sup>4</sup> Gender identity is defined as the “personal conception of oneself as male or female (or rarely, both, or neither)” (Fisher, 2019, p. 67). Historically, research into gender differences within autism, has predominantly considered gender as a binary construct. However, research examining gender identity for autistic individuals indicates that they may present with increased prevalence of gender fluidity (Bevan, 2017; Van Der Miesen et al., 2016). When considering the range of literature examining gender prevalence and presentation in autism, gender will be outlined in line with the author's descriptions.

Autism diagnosis in the United Kingdom (UK) is informed by the International Classification of Diseases 11<sup>th</sup> edition (ICD-11) (World Health Organisation, 2018). It is diagnosed at the behavioural level by clinical judgement, often informed by structured observations and interviews, such as the Autism Diagnostic Observation Schedule 2<sup>nd</sup> Edition (ADOS-2) (Lord et al., 2012) and the Autism Diagnostic Interview-Revised (ADI-R) (Rutter et al., 2003), alongside parental report and developmental history (Dworzynski et al., 2012; Falkmer et al., 2013).

Males have dominated clinical and research samples of autistic people from its inception, resulting in queries over the sensitivity of the diagnostic assessment process for females, because assessment has been developed around the male construct of autism (Dworzynski et al., 2012; Goldman, 2013; Kopp & Gillberg, 2011). The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) provides limited information on gender bias issues, but highlights that “females may not be diagnosed due to gender differences and that they may go unrecognised, due to subtler presentations of social and communication difficulties” (American Psychological Association, 2013, p.57).

Currently there is a lack of consensus about whether females present with a different autism phenotype to males. Research indicates that both genders are likely to have similar core difficulties, however the manifestation of autistic features in each gender may present, and be perceived, differently (Dean et al., 2017). Several studies suggest that early feminine advantage in social communication and interaction, alongside increased social motivation, enables autistic females to develop camouflaging strategies that mask their difficulties and allow them to blend in with their peers (Dean et al., 2017; Hiller et al., 2014; Lai et al., 2015). Autistic females are reported to have increased levels of social reciprocity and be more responsive to social cues and shared goals than their autistic male counterparts (Backer van Ommeren et al., 2017). However, these social skills may present with subtle differences to their neurotypical female peers, such as a reduction in turn taking and less involvement in adult-led initiatives (Backer van Ommeren, Koot, Scheeran, & Begeer, 2017; Dean et al., 2017).

Similar patterns are evident within autistic females' friendships, with Dean et al. (2014) reporting that autistic females are more socially motivated and connected to their peers, and less likely to be actively excluded, than autistic males. Differences between neurotypical gender relationships are well established throughout the literature (Aukett et al., 1988; De Goede et al., 2009; Sedgewick et al., 2016). Neurotypical female relationships are characterised as being more focused around relational factors, such as talking and emotional support. In contrast, the friendships of males are more defined by practical aspects, such as shared activities and power struggles (De Goede et al., 2009; McNelles & Connolly, 1999).

Research by Sedgewick et al. (2019) explored these gender patterns in relation to autism. Their mixed methods study included 102 adolescents (26 autistic boys, 27 autistic girls, 23 neurotypical boys and 26 neurotypical girls) and used semi-structured interviews, alongside two friendship questionnaires: Friendship Qualities Scale (Bukowski et al., 1994) and Revised Peer Experiences Questionnaire (Prinstein et al., 2001). They concluded that increased social motivation and strengths in communication contributed to autistic female friendships being experienced in similar ways to their neurotypical female peers. These friendships contrasted with the autistic male relationships, which were focused around practical elements of friendship and reported reduced closeness. Sedgewick et al. (2019) highlighted that, despite social strengths, autistic females' friendships were not without their challenges, often impacted by relational conflicts and difficulties in the management of these.

The gender differences that inform friendship experiences of autistic individuals are an important factor that underpin camouflaging. Friendships, especially relationships with neurotypical peers, are identified as a significant motivator for autistic individuals camouflaging their differences and attempting to blend in (Hull et al., 2017; Tierney et al., 2016). The desire to 'fit in' was an important theme for both autistic and neurotypical females within the research by Sedgewick et al. (2019), although the autistic females' experiences of this were less complex than that of their neurotypical female peers. Attempts to blend in were less evident in both the neurotypical and autistic male experiences of

friendships, with the exception of dating, which neurotypical males described as important for increasing their social status.

Alongside differences in social communication and interaction, females have been suggested to demonstrate less stereotypical restrictive interests than males (Hiller et al., 2014, 2016). Restricted and repetitive behaviours and interests<sup>5</sup> (RRBIs) are described by DSM-5 (2013) to include four patterns of behaviour: stereotyped speech or movements, excessive adherence to routines and patterns, restricted and fixed interests and sensory sensitivities. A recent review by McFayden et al. (2019) concluded that aspects of autistic females' restrictive and repetitive behaviours and interests present quantitatively and qualitatively differently to autistic males. They found that females presented with less adherence to routines, preoccupations, stereotyped mannerisms and repetitive play with parts of toys. Similar trends have been found throughout research examining females' interests, with researchers reporting that parents and teachers identify less restricted interests for females than males (Beggiato et al., 2017; Hiller et al., 2014; Solomon et al., 2012).

Researchers suggest that gender differences in RRBIs behaviours may be due to females camouflaging repetitive and stereotyped behaviours in different environments, as well as choosing more socially appropriate interests (Lord et al., 1982; Mandy et al., 2012). This view is supported by Sutherland et al. (2017) who explored parent perspectives of gender differences in their children. They found that the intensity of interests was similar for both girls and boys, however the girls' interests were more likely to fit within areas considered typical for their gender (dancing, animals and crafts). Research by McFayden et al. (2018) found similar patterns, identifying that autistic females' interests followed gendered expectations that often focused around social interaction, such as people and animals. They highlighted that autistic females may also convey their interests in more socially appropriate ways and often utilised these within

---

<sup>5</sup> An individual is required to show a minimum two out of four RBI behaviours to meet RBI criteria for an autism diagnosis (American Psychiatric Association, 2013). RBIs and similar descriptive terminology (e.g. repetitive behaviours/stereotyped behaviours) are used interchangeably throughout the literature. When considering the literature examining RBIs and autism, descriptions will reflect the author's conceptualisation of these behaviours.

their daily lives, meaning the intensity of interests appeared more appropriate and was considered less detrimental in impact.

The combined profile of differences presented by autistic females across areas such as social interaction, relationships and behaviour, potentially mean they are less likely to be identified and referred for an autism diagnosis, as their autistic behaviours are less likely to cause concern. This may be further compounded by gender expectations for females, who are encouraged and expected to show greater sensitivity and empathy in their relationships (Sedgewick et al., 2018). Autistic females are also more likely to internalise their anxiety and distress than either their neurotypical female peers or their autistic male counterparts (Solomon et al., 2012; Thompson et al., 2003). This internalisation of experiences is thought to result in autistic females presenting with less disruptive behaviours, and may contribute to increased levels of anxiety and depression (Mandy et al., 2012).

Females tend to be diagnosed later than males, often after a secondary mental health condition has been identified (Begeer et al., 2013; Wilkinson, 2008). The social difficulties they experience are often masked until they move into adolescence, during which time the increase in complexity and intensity of social demands becomes overwhelming. Support to manage these relationships and to facilitate the girls to present as socially competent often focuses on teaching social skills. Primarily, these include group based interventions focused around encouraging desired verbal and non-verbal behaviours, supporting conversational skills and developing emotional recognition and understanding (Bellini & Akullian, 2007; Williams White et al., 2007).

There is little research that focuses on the specific support for social skills that girls with autism access during this critical stage of development and the effectiveness of these. The broader research that examines social skills focuses on group based teaching for pre-adolescent autistic boys. It does, however, highlight the importance of social skills training being sensitive to the specific and individual needs of the pupils. Adolescence is a challenging period of development for many girls, and individualised and sensitive assistance in

learning to develop and effectively use social coping strategies is particularly pertinent for autistic girls, assisting them to develop and maintain positive social relationships.

#### **1.4 Camouflaging**

Throughout the literature, there is a lack of clarity regarding the terminology used to define the social coping strategies used by individuals with autism. Different studies use 'masking', 'camouflaging' and 'social camouflaging' interchangeably to describe similar presentations of behaviour. These encompass a range of strategies, predominantly described at a behavioural level, that aim to hide social difficulties associated with autism from others and use specific techniques to present as socially competent (Hull et al. 2017).

Camouflaging has been described as the “discrepancy between the person’s ‘external’ behavioural presentation in social-interpersonal contexts and the person’s ‘internal’ status (i.e. dispositional traits and/or social cognitive capability)” (Lai and Lombardo, 2017, p.4). Similarly, social camouflaging is defined behaviourally, as the “use of strategies to present a less visibly autistic persona to others during a social interaction” (Hull et al. 2019, p.1). Masking is defined as a specific camouflaging strategy, which focuses on “hiding one’s autism characteristics and developing different personas or characters to use during social situations”. (Hull et al. 2017, p.8).

A similar concept, ‘compensation’ has developed concurrently to camouflaging. Livingston et al. (2019) define compensation as the “processes that enable an individual with a neurodevelopmental condition (e.g. autism) to show few symptoms in behaviour, despite persistence in underlying cognitive difficulties/differences”. Compensation describes adapted cognitive strategies, which may lead to socio-cognitive and/or behavioural change (Livingstone et al. 2019). Compensation can be shallow (involving external changes that do not alter the underlying cognitive processes) or deep (using alternative cognitive routes to achieve the desired outcome) (Livingston & Happé, 2017). At present, the research is unclear regarding the extent that camouflaging and compensation overlap and reference the same construct.



For consistency, the term ‘camouflaging’ will be used throughout this thesis to describe strategies that aim to hide social difficulties and autism-based differences, except when authors are specifically referencing a distinct construct.

It is important to note that camouflaging behaviours are not exclusive to individuals with autism and most neurotypical individuals actively manage the way other people perceive them (Izuma et al., 2011). However, camouflaging experiences of autistic and non-autistic individuals are suggested to be different, with autistic individuals reporting significant negative consequences from their experiences of camouflaging, including exhaustion and anxiety (Bargiela et al., 2016).

### ***Cognitive theories informing camouflaging research.***

Camouflaging is a complex skill, reliant on a range of cognitive and social processes. Hill and Frith (2003) propose that cognitive theories of autism are important for explaining the interaction between atypical cognitive processing in autism and how these are presented behaviourally. At present, the precise mechanisms involved in camouflaging remain unclear. However, the interaction between camouflaging and two cognitive theories, Theory of Mind and Executive Functioning, have been examined within the camouflaging research.

Theory of Mind (ToM) refers to the ability to spontaneously infer what others are thinking and use this to anticipate and understand their behaviour (Happé, 2015). ToM was first linked to autism by Baron-Cohen et al. (1985), as a way to explain the persistent difficulties in social communication for autistic individuals. Using evidence from false-belief tasks, they proposed that autistic children’s ToM does not develop intuitively and remains compromised, impairing the child’s ability to attribute mental states both to themselves and others. ToM has been a long-standing and influential theory of autism, which has been reconceptualised to reflect the double empathy framework (Milton, 2012). This theory emphasises that differences in perspectives and understanding between autistic and neurotypical individuals are positioned within shared social interaction. This can result in a bi-directional breakdown in reciprocity and shared understanding, with each perspective finding it difficult to understand the

other. This updated perspective of ToM may be particularly applicable to camouflaging, as it provides a model for examining the role of understanding social expectations and adapting behaviour in response, which are core requirements of successful camouflaging.

The role of ToM in camouflaging has been examined by researchers including Livingston et al. (2019). They suggest that autistic individuals may use alternative cognitive routes to compensate for ToM difficulties to support social skills and expected behaviour. They emphasise that these compensatory strategies differ from the automatic and flexible mentalising strategies present in neurotypical individuals, with the compensatory strategies of autistic individuals remaining shallow, fragile and vulnerable to breaking down.

Alongside differences in ToM, a number of other constructs have been suggested to impact on camouflaging. For example, higher cognitive ability (measured by Intelligence Quotient (IQ)) and increased executive functioning abilities have both been identified as strong predictors for improved life outcomes for autistic individuals (Blumberg et al., 2016; Livingston & Happé, 2017; Magiati et al., 2014). Executive functioning (EF) refers to a set of cognitive abilities that underpin goal-directed problem solving (Gioia et al., 2002). This includes cognitive flexibility, inhibition, working memory, and action monitoring. A substantial body of research examining EF in autistic individuals reports significantly reduced performance in many tasks designed to measure aspects of EF (Demetriou et al. 2019; Kenny et al., 2019; Pellicano, 2010). Similar to ToM, the role of executive function in autism aetiology continues to be explored, proposed to be an individual difference within the autistic population that could mediate camouflaging (Johnson et al., 2015; Livingston, Shah, et al., 2019).

Livingston et al. (2019) examined the relationship between compensation, ToM, IQ and EF for 136 (112 males: 24 females) autistic adolescents (10-15 years). Participants completed a range of measures examining their IQ, autism symptoms, ToM, anxiety and EF. Using these measures, participants were separated into 'high' and 'low' compensator groups, quantified according to the discrepancy between ToM and autism symptomology. Livingston et al. (2019) found that while ToM difficulties remained similar for both 'high' and 'low'

compensators, increased IQ and EF skills were associated with reduced autism symptomology. They hypothesised that EF and IQ mediated successful compensation for social communication difficulties, facilitating the retrieval of learned social rules and information.

Camouflaging is a social phenomenon that is impacted by the individual's interaction within wider systems, as outlined in Bronfenbrenner's (2005) framework. Livingston et al. (2019) highlighted the impact of the environmental context, recognising that this may facilitate or hinder camouflaging according to social expectations and the structure that an autistic person is required to fit into. This may result in autistic individuals actively choosing situations that are more accommodating or avoiding demanding environments.

The complexity of the camouflaging required to blend in also varies, with some differences being easier to compensate for than others (Holliday-Willey, 2014). Shallow and learned strategies (e.g., mimicking others' gestures, learned scripts) may enable the individual to superficially navigate aspects of social interaction. However, these strategies are often inflexible and ineffective when applied to new or differing situations, resulting in breakdown of camouflaging skills (Livingston et al., 2019).

### ***Theoretical model of camouflaging.***

In 2017, Hull and colleagues outlined a model of camouflaging in autistic adults with three core stages. The first stage involves the motivations for camouflaging, which are suggested to be influenced by both internal and external demands. Internal demands are driven by the desire to achieve personal goals (e.g., developing and maintaining friendships). External pressures are motivated by social expectations in different environments and the desire to be 'normal enough'.

The second stage of the model involves camouflaging strategies, including masking of behaviours associated with autism and compensating for social difficulties, often by using explicit techniques such as social scripts and mimicking, to present as socially competent. The extent of these camouflaging

strategies varies depending on the individual and the situational context, often reducing when in the company of close friends and family.

The third stage of the model highlights the consequences of camouflaging, which were described as mentally and emotionally exhausting, with individuals needing time to recover. The exhaustion could be compounded by extreme anxiety regarding the success of their camouflaging and longer-term threats to their identity.

### ***Gender differences in camouflaging.***

Research exploring camouflaging in autism has suggested that people of both genders camouflage their autistic difficulties. However, the quantity of camouflaging, presentation and motivations often differ, partly due to societal expectations and individual differences (Cage et al., 2018; Cage & Troxell-Whitman, 2019; Hull et al., 2017; Lai et al., 2017). Hiller et al. (2014) found that being female was a significant predictor of complex camouflaging skills. Specifically, parents identified that their daughters had advanced social imitation skills compared to their male peers, and teachers identified substantially fewer concerns for females.

One method of measuring camouflaging is to compare the 'discrepancy' between behavioural presentation of autism and underlying cognitive and social abilities (Lai et al., 2017). Using this discrepancy approach, Lai et al. (2017) found that autistic women showed a greater difference between their external behavioural presentations and their internal autism features than men. Research by Hull et al. (2019) explored self-reported camouflaging in 778 autistic and non-autistic adults, analysing data from 306 autistic participants (108 male; 182 female; 16 non-binary) and 472 non-autistic participants (193 male; 252 female; 27 non-binary). They found that autistic females reported significantly higher camouflaging scores than autistic males, while no difference was found between non-autistic males and females. In particular, females reported significantly more attempts to mask their autism-based needs and blend in with peers. This finding is important as it contributes to the developing evidence that recognises how autistic females are particularly vulnerable to camouflaging their autism behaviours and attempting to blend in.

There is increasing recognition of the impact that camouflaging is thought to have on autistic females' mental health, with increased levels of anxiety and depression found in those who report higher levels of camouflaging (Bargiela et al., 2016; Cage et al., 2018; Lai et al., 2017). Current research primarily focuses on autistic women. However, there is concern that adolescent autistic girls who camouflage their needs are more likely to be bullied, isolated and rejected by their peers, and are less likely to receive support in school due to the illusion of coping (Dean et al., 2014; Hendrickx, 2015). The limited research that focuses on autistic girls' experiences of camouflaging is primarily based within mainstream school settings. This research provides similar reports of exhaustion and mental health needs associated with camouflaging, including anxiety and depression (Cook et al., 2017; Tierney et al., 2016). This emphasises the importance of developing understanding of the different camouflaging strategies that autistic girls use within specialised school provisions and the consequences of these on their learning and wellbeing.

## **Literature review**

Until recently, autism research has predominantly focused on males; an understanding of the female profile of autism is still developing. Historically, studies that included females primarily accessed clinical, rather than population-derived samples. This limits how generalisable the findings are to females within community settings such as schools. The majority of research exploring the camouflaging strategies used by autistic females, focuses on adult populations. However, research indicates that camouflaging skills for females with autism are evident from primary school age and increase in complexity during secondary education (Cook et al., 2017; Moyse & Porter, 2015).

This section reviews the existing literature relating to camouflaging amongst autistic people. Studies examining adult populations were included, due to a paucity of research focusing on the experiences of autistic people under 18 years of age. This literature will be reviewed first, providing an understanding of the motivations, strategies and consequences of camouflaging for adult populations. The review will then examine educational provisions available for autistic pupils, with a focus on resource bases. Due to the limited studies examining resource provisions for pupils with autism, one (male-only) study was included, which explored friendships within resource provisions. Finally, this review will bring together the camouflaging and educational literature, focusing on studies that examine camouflaging strategies used within mainstream and specialist schools. Further information regarding the literature review is detailed in Appendix A.

### **2.1 Research examining autistic adults' camouflaging**

This section will primarily evaluate three key papers that examined autistic adult's experiences of camouflaging. The first two, by Hull et al. (2017) and Cage and Troxell-Whitman (2019) used fairly large-scale questionnaire studies, while the study by Bargiela et al. (2016) took an in-depth, qualitative approach. Hull et al. (2017) explored the characteristics of camouflaging in 92 adults with autism using an online questionnaire, and analysed responses using thematic analysis. A strength of this study was the inclusion of both males and females, which allowed for consideration of the impact of gender on camouflaging. The

results showed that the majority of participants described using camouflaging in everyday life, yet there was no consistent pattern of difference in camouflaging presentation that related to gender. This finding contrasts with later work by Hull et al. (2019), which used a quantitative, self-reported measure of camouflaging to examine differences between genders. They found that, once age and autism symptomology had been controlled for, females displayed higher levels of camouflaging than men.

Within the study by Hull et al. (2017), participants' motivation for camouflaging centred around them wanting to avoid negative discrimination, with increased education and acceptance of difference considered fundamental to reduce the need for camouflaging. Participants also described consequences to their camouflaging. They highlighted that whilst camouflaging could result in improved social outcomes and work opportunities, participants experienced exhaustion and extreme anxiety as a result of these behaviours. For many, this anxiety was further impacted by uncertainty about the success of their camouflaging, as well as concerns around their authenticity when masking, which was thought to undermine their identity and friendships. This finding reflects the key messages from a review by Gould and Ashton-Smith (2011), who highlighted the emotional impact of camouflaging and repression of autistic behaviours. They also emphasised the resulting exhaustion and potential for increased mental health difficulties among autistic people who camouflage. Hull et al. (2017) provided an important look at the nature and consequences of camouflaging for 92 adults (55 female, 30 male, 7 other-gender). However, the participants' ages ranged from 18 to 79 years ( $M=43$  years), which meant that their experiences and motivations for camouflaging were likely to be significantly different from the experiences of adolescents. It is also likely that the online and text-based questionnaire appealed primarily to those adult participants who had the verbal and cognitive ability to independently access the survey. Therefore, caution is needed in generalising the findings into the wider autistic community.

A mixed methods study by Cage and Troxell-Whitman (2019) also used an online survey to explore the motivations, contexts and costs associated with camouflaging for autistic adults. The study included a larger sample of 262

participants (135 females, 111 males and 12 other-gender) with a similarly wide age range from 18 to 66 years ( $M=34$  years). The study included measures of camouflaging, autism symptoms, mental health, as well as questions that aimed to examine the reasons (e.g., to get others to take you/your ideas/your work seriously) and contexts (e.g., with colleagues at work) that motivated participants to camouflage. A strength of this study was the inclusion of autistic adults' perspectives about the topic and survey items, incorporating their recommendations into the questionnaire.

Cage and Troxell-Whitman (2019) found that camouflaging was associated with similar impacts on mental health to those reported by Hull et al. (2017) (e.g. increased stress). An interesting finding from this study was that participants who reported switching between camouflaging in one context but not in others, presented with similarly high levels of stress as the participants who camouflaged more consistently. Both of these groups experienced significantly higher stress than individuals who reported lower levels of camouflaging. The authors attributed these high stress levels to the ongoing evaluation of perceived risk in presenting their autistic identity in different contexts, and the impact of disconnection and reconnection between their identity. Cage and Troxell-Whitman (2019) also identified gender differences in the reasons for camouflaging, with females being more motivated by conventional factors (e.g. work and education) than males.

Similar to Hull et al. (2017), Cage and Troxell-Whitman (2019) included participants whose ages ranged throughout adulthood, with the majority receiving their autism diagnosis as adults. In addition, most participants in both studies had been educated to higher education level. This made it unclear whether the reasons and consequences of camouflaging identified here would generalise to autistic adolescents, and especially those who have been identified as requiring additional support within specialised educational provisions.

In contrast to the large online studies by Hull et al. (2017) and Cage and Troxell-Whitman (2019), a study by Bargiela et al. (2016) aimed to examine camouflaging in more depth, within a small sample of autistic females. They



explored the experiences of 14 adult autistic females who had all received late diagnoses (15 years or older) attributed to their autistic difficulties being unrecognised in childhood and early adolescence. Semi-structured interviews were used alongside measures of autism symptoms, cognitive ability and mental health (e.g. anxiety and depression). Within the interviews, camouflaging was identified as a key social coping skill by the females, who outlined a range of ways to mask their autistic presentations and adopt a different persona that fitted the situation. The motivations for this included appearing 'normal' and avoiding conflict. However, similar to the research by Hull et al. (2017) and Cage and Troxell-Whitman (2019), females reported significant consequences to camouflaging, such as exhaustion, challenges to their identity and lack of awareness from others regarding their autistic needs.

A strength of the Bargiela et al. (2016) study was the smaller age range of 18 to 30 years (M=26 years), which meant that the participants were all reflecting on their school and early adulthood experiences. One identified theme described the females' needs being missed, both due to a lack of knowledge around the female autism presentation and their use of coping skills, which resulted in them being unidentified and unsupported while at school. Strategies to manage in school included being passive, quiet, and a 'model pupil'. Where the participants experienced misunderstandings and incidents of bullying due to their social difficulties, they reported being encouraged to 'act more normally' and therefore learned to camouflage their differences. The challenge for autistic females to negotiate the social demands of school and the requirement to 'fit in' are common themes reflected through the literature. These demands increase as they move into adolescence and the social coping skills required become increasingly complex.

## **2.2 Educational provision**

Before reviewing the literature that explores camouflaging strategies in different school settings, I will consider the literature around different educational provisions available for pupils with autism, and the legislation around inclusion that informs these.

### ***Inclusion legislation***

Internationally, inclusive education is enshrined in law by the 1994 Salamanca agreement. This was signed by representatives from 92 countries who agreed that 'ordinary schools should accommodate children, regardless of their physical, intellectual, emotional, social, linguistic or other conditions' (UNESCO, 1994, p5). This agreement recognised that inclusive approaches were the most effective way of increasing acceptance and reducing discriminatory attitudes towards pupils with SEN (UNESCO, 1994).

Current government legislation within the UK emphasises the need to provide inclusive education to pupils with SEN, including autism. The SEND Code of Practice (COP) (Department for Education, 2015b) highlights the need to 'remove barriers to learning' for pupils with SEN, placing increased responsibility on mainstream schools to support autistic pupils. The movement towards inclusive education has been underpinned by concerns that the human rights of children are compromised by specialist educational provisions, due to segregation from mainstream peers and mainstream teaching practices (Lindsay, 2007).

### ***Inclusion for autistic pupils***

There are a number of publications outlining educational policies to support inclusion of autistic pupils, including the Inclusion Development Programme: Autism (Department for Children, Schools and Families, 2009) and the Competency Framework published by the Autism Education Trust (Charman et al., 2011). Despite these policies outlining good educational practice for autistic pupils, in 2017 the All-Party Parliamentary Group for Autism highlighted that more is required to ensure that autistic pupils are consistently and effectively supported in education (National Autistic Society, 2017). They recommended that a national strategy to support autistic pupils should be developed, which includes a specialist curriculum, staff training, and approaches to promote inclusion and reduce bullying.

The SEND COP (2015b) positions children and young people (CYP) and their families at the centre of the SEN processes. This requires local authorities to include the views and wishes of families in decisions around individual provision

and in relation to the commissioning of local services. Currently within the UK, 50% of CYP with an autism diagnosis are educated within mainstream provisions (Department for Education, 2019). In January 2019, there were 73,000 pupils with EHCPs in England that had autism reported as the primary need. This equates to 29% of all pupils with EHCPs having autism detailed as their primary need. Of these, 21,600 (30%) autistic pupils attend mainstream primary, 14,766 (20%) autistic pupils attend mainstream secondary and 36,625 (50%) autistic pupils attend specialist school provisions. Note: these figures do not include independent schools or nurseries. Resource bases are included within the figures for mainstream schools, with 1045 primary resource bases and 640 secondary resource bases throughout England. However, there is currently no data that categorises the resource bases according to primary need, with many resource bases accommodating multiple needs (DfE 2019). This means that there is little clarity regarding the number of resource bases that provide support for autistic pupils to attend mainstream school.

Autistic young people and their parents identify benefits with mainstream school provisions, including increased opportunities for social inclusion (Bond & Hebron, 2016; Falkmer et al., 2015). Both parents and teachers also emphasise the value of typical peer role models to encourage social interaction and friendships, while autistic pupils outline the importance of being socially accepted and having friends (Makin et al., 2017; McNerney et al., 2015). However, mainstream school can be challenging for young people with autism, due to the frequent changes and unpredictability that are inherent within this environment. Difficulties with communication and social interaction can make school difficult to navigate, especially as young people progress into secondary education (Makin et al., 2017). Many autistic pupils also have other co-existing learning, behaviour and sensory needs, as well as being at increased risk of mental health difficulties, making them vulnerable to being bullied and socially excluded by their mainstream peers (Frederickson et al., 2010; Whittaker, 2007).

The challenges of the mainstream context result in reduced parental confidence regarding whether their autistic children can be supported and included successfully within a mainstream setting (Whittaker, 2007). Parental concerns

include the overwhelming and chaotic school environment and the potential for children to be bullied or socially isolated (Ashburner et al., 2010; Humphrey & Lewis, 2008). These concerns are exacerbated by the lack of specialist knowledge and external support that mainstream school staff have regarding autism (Waddington & Reed, 2006). The limited research that explores differences in specialist and mainstream provisions for autistic CYP reinforces these concerns. It suggests that there are fewer opportunities within mainstream settings for addressing the subtler social and life skills that are often referred to as the 'hidden curriculum' (Humphrey & Lewis, 2008; Lee et al., 2008).

### ***Specialist autism resource base***

One approach to meeting autistic pupils' needs is specialist resource bases attached to mainstream schools. This type of provision is intended to offer the advantages of both specialist and mainstream provisions, providing the CYP with a calm and safe base to retreat to and increased specialist knowledge and personalised support. There is little literature that explores the experiences of autistic pupils within resource bases or that considers the strengths and limitations of this type of provision. The few studies that do explore this tend to be undermined by methodological concerns, including small samples that often do not include females, and an absence of the pupil voice (Landor & Perepa, 2017; McAllister & Hadjri, 2013).

Two qualitative studies by Bond and Hebron (2016; 2017) used semi-structured interviews to examine teacher, parent and pupil perceptions of attending five primary and three secondary resource bases, during pupils' first year within these provisions. The sample included 43 staff members, primarily made up of senior leadership (e.g. headteachers, special educational needs co-ordinators, teachers), 16 parents/carers and 9 pupils (2 females, 7 males; 8-15 years). In line with previous research (Frederickson et al., 2010; Lindsay et al., 2016), parents had positive perspectives of their children's outcomes within the resource bases. They identified the personalised and flexible support, positive relationships with staff, and quiet space to return to, as all being important aspects of the resource base that improved their children's experiences of

school. Parents and teachers emphasised the value of being able to prioritise the social skills needed to enable inclusion within the mainstream classes.

A potential strength of the methodology was that the authors repeated the interviews at specific time points throughout the year, enabling greater clarity around the development of perspectives. However, methodological issues limit the generalisability of these findings. First, only one parent and child dyad completed all three interviews, with other participants completing one, two or three interviews each. Additionally, initial interviews were not audio recorded, with the researchers relying on note-taking. These factors may have resulted in the early views and perceptions following the transition being given less weight during the analysis, due to the reduced amount of information collected.

A further methodological concern regards the difficulty of considering the participants as a homogeneous group. The research included pupils with a primary need of either autism or Specific Language Impairment (SLI), and the participants spanned the entire school age range, from entering school at the age of four years through to leaving school at sixteen years. The differences in the structure of primary and secondary schooling and the inevitable differences in the way resource provisions provide support at different school stages was not recognised within the findings, resulting in a lack of specificity.

Similar to the work of Bond and Hebron (2016; 2017), Croydon et al. (2016) explored the experiences of 20 pupils attending 'satellite classes' that follow a similar model of inclusion to a resource base. The satellite classes were physically based within mainstream schools but were organised and facilitated by specialist schools. The staff remained employed by their specialist school, bringing their expertise and extensive support network with them. In the model reported by Croydon et al. (2016), the pupils transitioned in small groups of five and remained on roll at their specialist school, enabling them to transition back if required.

Croydon et al. (2016) used mixed-methods; quantitative measures examined autistic behaviours, cognitive ability, resiliency and quality of life and were completed at two time points, a year apart. These were complemented by semi-structured interviews completed at the same time points. The multi-informant

perspective was a significant strength of this research, particularly as it included the views of the young people, as well as their parents and teachers. Autistic pupils' voices are often under-represented within research, especially where they have additional learning difficulties (Greathead et al., 2016). Including the pupils' perspectives by supporting these with visual prompts enabled their views to be included. This was further strengthened by triangulating their experiences with the views of their parents and teachers at each time point, presenting the reader with a clear understanding of the different perspectives and how these changed over time. A second strength of the research was the inclusion of girls within two of the transition groups (4 males, 1 female; and 4 males, 1 female), although the discrepancy between boys and girls remained significant, with two groups having no girls included.

The researchers reported a range of positive outcomes for the pupils who had transitioned into the satellite classes, as well as for their families and the broader school community. Participants described a range of strengths associated with the satellite placements and reported positive pupil outcomes regarding learning, behaviour and social awareness. These outcomes were most evident around the pupils' resilience and social and emotional competence. Families identified the increased inclusion in mainstream as a positive outcome, with some experiencing increased acceptance. These outcomes indicate that satellite resource bases may present positive opportunities to meet the needs of pupils with autism. However, assumptions about the transferability of these outcomes require caution, as the study was not able to clearly link these gains to the experience of being within the satellite class, rather than external factors such as age-based development.

When considering the generalisability of the outcomes from this study into other resource bases, it is important to recognise that the satellite class model of inclusion includes several aspects that are different to the structure of other resource provisions. For example, the pupils were purposively chosen, due to their profile being considered to fit within the mainstream environment. The researchers identified that this resulted in a more homogeneous group with similar levels of verbal ability, which made it easier to teach effectively. Additionally, the pupils transitioned as a group, with teaching staff who had

previously taught them. This may have reduced the impact of uncertainty and change, which is recognised within previous research to be a challenging aspect of school transitions for autistic pupils (Makin et al., 2017).

Both Bond and Hebron (2017) and Croydon et al. (2016) identified that a key aspect of resource/satellite provisions is the increased opportunity for social inclusion, alongside the option to retreat into a safe space when the social expectations become too much. Accessing the mainstream school curriculum requires almost constant social exchanges, with children expected to negotiate increasingly complex interactions as they progress through school. Within both studies, staff explicitly taught social skills to enable their pupils to manage the social expectations of mainstream lessons. They identified that one of the strengths of this type of provision was regular opportunities to practice generalising social skills and prioritise the teaching of hidden aspects of the curriculum.

In summary, this review of literature highlights that there are many features of resource bases that could be protective for autistic pupils, such as a quiet safe space to retreat to and individualised support, reducing the pressure for autistic pupils to camouflage their needs. Having a resource base attached to the school may also increase peer awareness and understanding, which is an important feature of social inclusion and a key requirement for reducing camouflaging (Hull et al., 2017). However, this association is complex, with various studies reporting that, despite mainstream pupils having increased awareness and understanding of pupils attending resource bases, they continue to identify them as being different, due to their additional in-class support (Landor & Perepa, 2017; Savage, 2005).

## **2.3 Research exploring camouflaging strategies for children and young people**

### ***Camouflaging for pupils in mainstream schools***

Currently, the limited research that explores camouflaging in school-age populations primarily focuses on children attending mainstream provisions. I will

review these studies before considering how these may apply to autistic girls attending more specialised provisions, including resource bases.

Dean et al. (2017) used the Playground Observation of Peer Engagement (POPE) (Kasari et al., 2011) to compare the social behaviour of 96 pupils (24 autistic girls, 24 autistic boys, 24 neurotypical girls and 24 neurotypical boys) during playtime. The children were between the ages of 6 to 11 years ( $M=7.5$  years) and were all educated in mainstream classes for at least 80% of the school day. Results demonstrated that the autistic girls had difficulties in social synchronisation and adjusting behaviour to follow group norms. They used strategies to mask their social difficulties, including weaving between activities and staying close to peers. Their camouflaging behaviour concealed their challenges from the adults monitoring school play, but not from their peers. The generalisability of this study is limited by only including observations from a single time point, rather than observing at different times and in different contexts. This makes it difficult to understand how stable the social behaviours were and the reasons underpinning them, such as whether the girls lacked the skills to engage further or chose to remain at the edge of play. The transferability of these findings may also be limited by the study being based in America, where the structure and duration of playtime is likely to be qualitatively different to the UK. Similar findings from the UK indicate that girls with autism exhibit a 'passive personality', attempting to avoid negative reactions from peers. They are more likely to 'cling' to others, have a tendency to engage in repeated questioning and experience difficulties understanding emotions conveyed through facial expressions. This camouflaging behaviour and 'passive personality' highlights the vulnerability of autistic girls, who are less likely to receive the support they require in school (Attwood, 2006; Lai et al., 2017).

Missing out on appropriate support in school is reported to contribute to autistic girls' underachievement compared to their mainstream peers (Howlin, 2005). This underachievement may be further compounded by difficulties associated with their autism and the impact of trying to camouflage these, resulting in high levels of exhaustion and anxiety that negatively affect their ability to learn (Bargiela et al., 2016; Gould & Ashton-Smith, 2011). Moyse and Porter (2015)



used case studies that included non-structured observations and multi-informant interviews to gain in-depth experiences of mainstream primary school for three autistic girls (age 7, 8 and 11 years). Although they did not aim to look specifically at camouflaging, they identified a range of social rules and expectations that were implicit and untaught, which underpinned the primary school environment. The girls used a range of social coping skills to negotiate the challenges of this 'hidden curriculum', including a desire to work separately and to stay on the periphery of groups. They also used a range of behavioural strategies, which were underpinned by their need to control the physical space around them and manage their sensory needs. These included fiddling with hair, having a specific place in the line, taking extended routes between classes and waiting so the corridors were quieter. All three girls used variations of 'hiding behaviour' to camouflage their difficulties, often not participating and then watching peers for clues, or writing so small that it was illegible to the teacher. The social coping skills used by the participants in this study camouflaged their subtle presentation of anxiety, isolation and under-performance.

This research was limited by being a small study of three girls, with observations completed over a short time period (three consecutive days), followed by interviews a week later. The researchers did observe the girls in a range of school contexts, including different lessons and unstructured social times. Yet these observations followed an unstructured narrative approach, which may have resulted in confirmation bias with the researchers identifying and interpreting the girls' behaviours within their pre-determined expectations of the hidden curriculum. Triangulating the interview responses from the girls, their parents and teachers supported the validity of the observations and highlighted disparities between the girls' presentations at home and at school. This research emphasises the need to build awareness of female autism presentation, to ensure girls receive appropriate support to address challenges in school and the mental health difficulties that many experience as they move into adolescence.

The challenge of adolescence, alongside the demands of the school environment, were key factors identified by Tierney et al. (2016) in their

research. They used semi-structured interviews to explore the social coping strategies and experiences of ten adolescent autistic girls (13-16 years). The participants were primarily in mainstream education, with the exception of two girls who were home educated, and one who was in a pupil referral unit. Several participants were identified through their current involvement with Child and Adolescent Mental Health Services (CAMHS), but further information about any co-existing mental health needs was not provided. This makes it difficult to evaluate how generalisable the girls' experiences are to other adolescent autistic girls, who may be presenting with lower levels of mental health need. The researchers found similar themes to Hull et al. (2017), with participants expressing a desire to have friends as motivating their camouflaging attempts. Their camouflaging was also underpinned by a range of techniques that centred around not wanting to be different. The social environment presented immense difficulties for the girls, particularly as they moved into adolescence, and this provoked feelings of distress, rejection and isolation. All participants reported anxiety in social situations, but this was masked in school, with staff surprised at the level of distress reported by the girls.

The three reviewed studies identified that autistic girls' learning and social needs were hidden within mainstream classes, due to their use of camouflaging strategies that masked their difficulties. The girls expressed their anxiety in subtle ways, including withdrawal and the use of 'appropriate' repetitive behaviours, such as twisting hair and biting nails. An important feature of resource bases is the curriculum flexibility and opportunity for staff to develop strong relationships to meet pupils' individualised needs. This may reduce the need for the girls to camouflage within mainstream class, as well as providing 'down time' in a safe space that has reduced sensory and social demands. This could enable the girls to recharge and access catch up lessons, allowing them to meet their academic and social potential.

### ***Research in specialised school settings, including resource bases***

Throughout the literature, in both adult and adolescent groups, one of the key motivators for camouflaging has been shown to be friendships. Autistic girls are often able to maintain friendships during childhood. However, as they move into

adolescence, friendships become characterised by small intimate groups and a focus on social problem-solving, emotional support and reciprocal sharing (Blatchford, 2003; Cridland et al., 2014). Difficulties with the complexity of these social interactions mean that adolescents with autism are more likely to experience peer rejection and isolation (Dean et al., 2014), and this may motivate autistic females to mask behaviours that would otherwise undermine the social norms within their friendships.

Research that has explored friendships for autistic pupils in resource bases was unanimous in finding that they are more likely to identify friends within the resource base than in mainstream classes (Croydon et al., 2016; Locke et al., 2010). O'Hagan and Hebron (2017) explored perceptions of friendship within a secondary resource base and identified that this provision presented a pre-established social group for autistic pupils. They noted that these interactions were encouraged as pupils return to the base during social times and are often encouraged to sit together in mainstream lessons, so they can share teaching assistant support. A limitation of this research is that it only included male participants. It is likely that qualitative differences between male and female friendships, and the reduced number of females attending autism resource bases, may result in different friendship experiences and motivations for girls within resource bases.

Qualitative research by Cook et al. (2017) used semi-structured interviews to explore friendships, bullying and camouflaging in contrasting school settings. Eleven adolescent girls with autism were interviewed, alongside their parents. Five of the girls were at mixed mainstream schools, with one at a mainstream all-girls school. Four of the remaining five girls were in specialist mixed schools, with one in a specialist all-girls school. The research provided limited information around the comparability of the school settings with respect to size, social-economic status and number of children with SEN in the mainstream settings. There was also no attempt to match the presentation of the girls, with three of the five that attended specialist school, having co-existing diagnoses of learning needs (learning difficulties and/or global developmental delay). These differences made it difficult to understand whether distinctions between school

settings were the result of environmental factors and individual differences, or reflected the experiences of broader groups of autistic girls.

Cook et al. (2017) analysed their data using thematic analysis, so that patterns could be considered within the contrasting school settings, as well as across the whole data set. In line with existing research, Cook and colleagues found that motivation to have friends was a key theme. An interesting feature of friendships across both school settings was the tendency to develop friendships with other females with SEN. This enabled the participants to feel accepted and less inclined to camouflage, which reflects the friendship experiences of autistic pupils within resource bases. Friendship challenges and social isolation were experienced by all the girls. However, within the specialist schools, the SEN needs of the other children often added to the participants own difficulties.

Camouflaging difficulties associated with autism were identified by parents as a frequent coping strategy in mainstream schools, but less so for the females who attended specialist schooling. This reduced awareness of camouflaging within specialist schooling may be a reflection of reduced awareness of the girls within these settings, due to individual differences or a different benchmark for 'expected behaviour'. It may also reflect less awareness from parents around these behaviours and how they present. Within the study, parents acknowledged the advantage that camouflaging provided for managing social difficulties. However, they were also clear about the challenges that it presented. Parents described their daughters' emotional outbursts at home and a lack of awareness from school staff around their daughters' needs.

These conclusions are limited by the authors not having collected information exploring the perspective of school staff. The discrepancy between the girls' behaviour at school and home is a recurrent theme throughout the literature, and parents often rate the impact that autism has on their daughter as more severe than teachers do (Cridland et al., 2014; Myles et al., 2007). This highlights the value of including multiple informants to explore the experience of adolescent girls with autism and becomes increasingly important when considering this within the complexity of specialist school provisions.

## **2.4 The role of EPs**

Robinson et al. (2018) surveyed EPs regarding their role and reported that 30% of their total casework involved supporting students with autism. EPs have specialised knowledge of child development and an understanding of how this interacts with the wider systems involved in education provision. The research reviewed within this chapter highlights the challenges of the mainstream environment for pupils with autism and suggests this is exacerbated by a lack of specialist knowledge and support. Within mainstream school settings, the small quantity of research examining the camouflaging experiences of autistic girls broadly follows the patterns identified within the larger evidence base for autistic women. Specifically, that autistic girls are motivated to camouflage by a desire to 'fit in' and maintain relationships. While camouflaging needs may be associated with increased social opportunities, they are also associated with significant negative impacts to mental health, including anxiety and depression, as well as exhaustion and challenges to their identity. These consequences are further impacted by a lack of awareness and recognition of these behaviours within schools, resulting in autistic girls not receiving the support they require.

Currently there is no research that examines the camouflaging skills that autistic girls use within resource provisions. These settings encourage pupils to integrate between mainstream and specialised support, potentially reducing the requirement to camouflage and, in turn, the consequences associated with camouflaging. Recognising and supporting mental health needs in young people within education is a key government strategy, outlined in the recent green paper: Transforming Children and Young People's Mental Health Provision (2017). EPs have a significant role in contributing to this support, at an individual, whole school and strategic level. Developing a clear understanding of the different camouflaging strategies girls use within specialist resource provisions, and any positive or negative consequences these strategies have, is important to enable EPs to recognise broader challenges to the girls' learning and wellbeing. This informed understanding will guide support and intervention, as well as increase awareness of the girls' motivations and experiences of camouflaging. At a wider level, building awareness of the girls' experiences of camouflaging is important to increase acceptance of difference,

which has been identified as fundamental to reducing the need to camouflage (Hull et al., 2017). EPs have an important role in contributing to this research, developing awareness and sharing best practice with educators. Further research is therefore needed to explore the experiences of autistic girls, their parents and educators to develop understanding of the camouflaging skills they use, both within the resource base and while accessing the mainstream school.

### **Research Questions**

- Do autistic girls educated in resource bases use camouflaging strategies; and, if so, how do these present in different contexts (within school settings and also at home)?
- What are the motivations and consequences of using camouflaging strategies for autistic girls attending resource bases?

## **Methodology**

### **3.1 Chapter summary**

This chapter details the theoretical perspectives relevant to this research and outlines my ontological and epistemological stance as a researcher. I outline the research design, participant sample, research collection tools and data analysis. Finally, I detail the procedure and outline ethical considerations.

### **3.2 Approach to research**

#### ***Ontological and epistemological considerations***

This research adopts a social constructionist perspective; recognising the world as socially constructed, and highlighting the shared meanings and language that are created through interactions between different individuals, groups and cultural factors. This epistemological perspective aligns with the researcher's theoretical viewpoint of systems theory, which recognises the importance of focusing on different experiences and perspectives of the complex interactions between different factors and systems (Bronfenbrenner, 2005). The social construction of meaning is particularly relevant when considering camouflaging of needs, as alongside the variation in terminology that labels it, the desire to 'blend in' with social expectations is not a stable phenomenon and will be understood differently according to each girl's experiences and interactions. These are further influenced by the expectations, aspirations and experiences of the girls' parents and educators, alongside the wider system interactions underpinning inclusivity and the role of society in constructing difference (Kamenopoulou, 2016). Therefore, it is essential to explore multiple perspectives on camouflaging, to develop a rich understanding of the contextual and systemic factors influencing the girls' experiences of camouflaging.

#### ***Reflexivity***

Yardley (2000) emphasises that it is ineffective for the researcher to position themselves as objective during qualitative data collection and interpretation. Within the social constructionist perspective, it is important to recognise that

shared meanings are co-constructed during social interaction. Therefore, it is necessary to examine the social context between the researcher and participants, providing clarity around the impact of these beliefs, values and assumptions (see Figure 2).

#### Researcher background

My research perspectives are informed by my experiences as a white, middle class mother with two sons (one of whom is diagnosed with autism and learning needs). Prior to training as an EP, my work included teaching life skills to young adults, supporting autistic children and their families in school and the community, as well as contributing to autism assessment and diagnosis within CAMHS.

#### Researcher beliefs

My interest in the identification, diagnosis and support of autistic girls stemmed from my role within CAMHS and subsequent experiences working with children, families and schools as a trainee EP. Through these roles, I developed a belief that the identification and support for autistic girls is often delayed, due to their ability to mask their social communication needs. Despite these social communication strengths, many of the girls I have supported were experiencing significant and increasing challenges in managing daily life and accessing appropriate recognition and support at school.

I recognise that my position as a white, middle class, trainee EP may have resulted in unequal power dynamics and impacted the relationships I built, especially for the pupils. To reduce this impact, time was spent building rapport, explaining my role and ensuring that pupil participants had choices around their participation (e.g., drawing or talking).

#### Researcher school role

I work within the Local Authority (LA) of one of the three schools who took part in this research, however this school is linked to a separate team of EPs and I had not previously had any contact. I had not had any previous connection with Schools Two or Three, which are based in different LAs. This meant that I built new relationships with staff from each school and visited them for the first time during this research.

Figure 2. Researcher positioning



### 3.3 Research design

The camouflaging experiences of autistic girls were investigated using a largely qualitative design. The rationale for this focused around the limited research exploring camouflaging used by autistic girls, particularly where their needs were met within a specialist resource provision. Specialist resource bases were chosen as an intermediary position between mainstream and specialist schools, with all the girls integrating into some mainstream lessons and some of them integrating into unstructured social time. The study was designed to provide a rich and detailed initial account of how autistic girls experience the social demands of adolescence and secondary education, examining their experiences of camouflaging when attending a resource base.

Qualitative semi-structured interviews were chosen as they are well suited to educational settings, allowing for flexible exploration of concepts that are novel to the researcher (McDuffie & Scruggs, 2008; Willig, 2001). Quantitative background measures were used to supplement this, providing clarity on the individual presentations of the sample. This was imperative, as the presentation of autism varies significantly between each person (American Psychiatric Association, 2013). Therefore, it was important to describe each girl's individual characteristics and be able to examine the influence these may have had on their camouflaging experiences. This was obtained by collecting information about the age of the girls when receiving their autism diagnosis and EHCP<sup>6</sup>, any co-occurring diagnoses, academic achievement, autism symptomology and the family and school context (discussed later in this chapter).

The nature of social coping skills, such as camouflaging, means that presenting behaviours are often hidden within the school environment, with school staff expressing surprise at the level of social and emotional distress that their autistic female pupils experience. Combining multiple informant perspectives (girls, parents and educators) to examine camouflaging enabled triangulation between data, to explore convergence and contradictions between the findings.

---

<sup>6</sup> EHCP stands for Education, Health and Care Plan. These are used to identify the education, health and social needs of children and young people (up to 25 years) who require a higher level of support than the school is expected to provide, and outline the legal responsibilities to provide this support (Great Britain, 2017).

This was especially important when considering the limited current research exploring camouflaging strategies in this group, increasing validity and allowing for new hypotheses and knowledge.

Due to the limited research and complexities around camouflaging, all the girls were observed prior to semi-structured interviews taking place. Observations have many strengths, avoiding difficulties associated with self-reported data and enabling research to take place within the naturalistic setting, providing a direct account of behaviours (Ary, 2014; Mays & Pope, 1995). Observations were completed in different school environments (mainstream lessons, resource base lessons, unstructured social time), aiming to provide context of the culture and resources within each resource base and the wider schools. They were also used to develop clarity around whether the girls used camouflaging behaviours in the different contexts and, if so, how these presented. The qualitative information gathered through observation informed the descriptions of each school setting, and were triangulated with the semi-structured interviews and individual measures characterising the sample. Combining different methods also reduces the limitations associated with each individual approach. Additionally, it is valuable for examining different aspects of a complex phenomenon, such as camouflaging, resulting in richer understanding of the data (Maxwell, 2012).

### **3.4 Participants**

#### ***Recruitment of participants***

Due to the small numbers of girls attending autism resource bases, purposive sampling was used to identify participants. Purposive sampling is a non-probability method in which participants are identified by the researcher. This approach is often used for the recruitment of specific and hard to access groups (Robson, 2002). Senior staff at secondary specialist autism resource provisions throughout London and the South East of England were contacted, via their school link EP, and asked to participate in the research.

Three resource bases, across three separate local authorities, agreed to participate in the research. The researcher initially met with senior staff in each resource base to explain the study and discuss requirements. All three resource

bases chose not to offer the option of participation to their year 11 pupils, who were in the last term of school (citing pressures of exams and transitions, meaning the girls were already at a heightened level of anxiety). The participant recruitment procedure is shown in Figure 3.

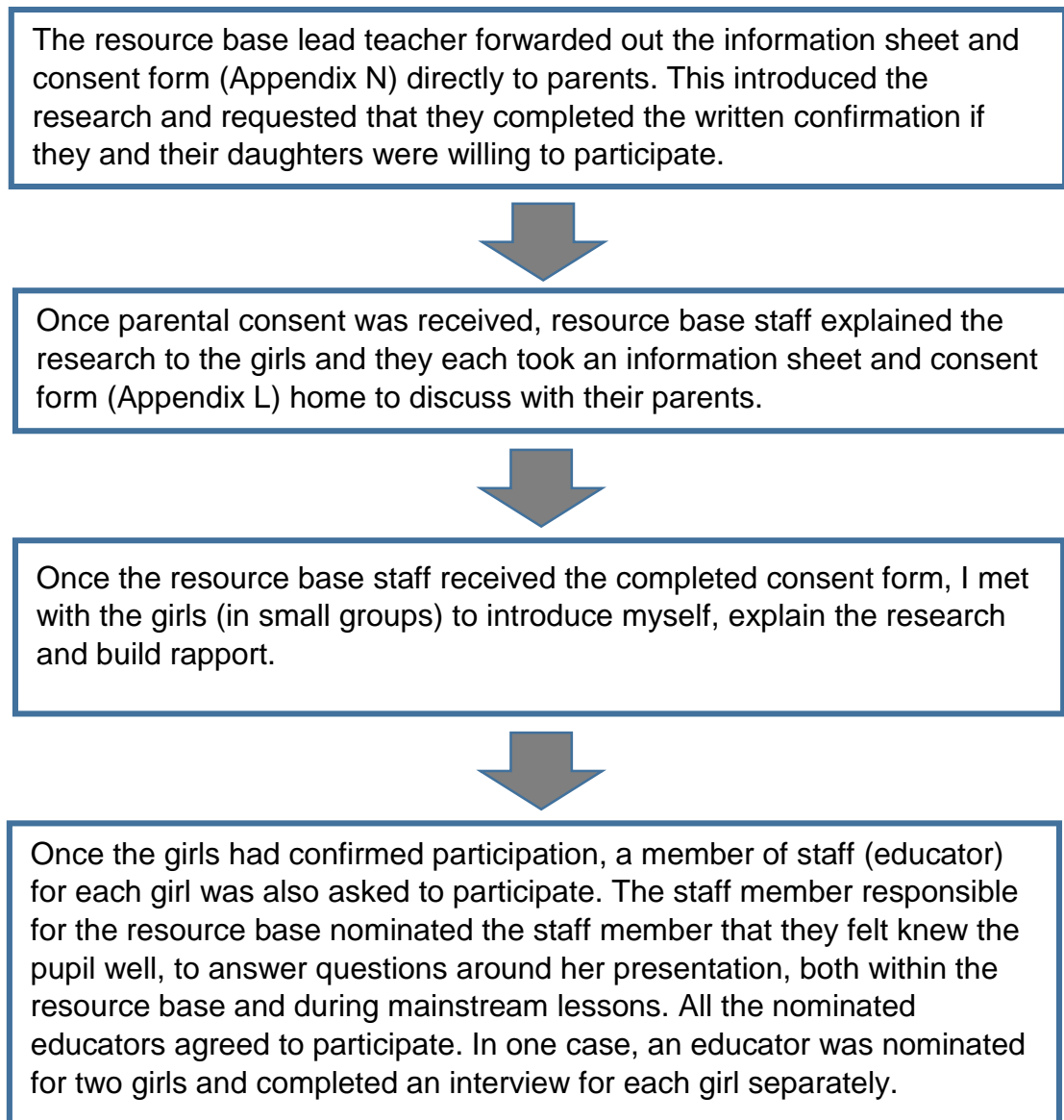


Figure 3: Participant recruitment process.

### ***Inclusion criteria***

A total of eight triads (girl-parent-educator) took part in the study across the three autism resource bases. To be eligible to take part, participants were required to meet the following inclusion criteria:

- To have received a clinical diagnosis of autism spectrum disorder;

- To be between 11-18 years of age inclusive;
- To have an Education, Health and Care Plan (EHCP) and be attending a specialist autism resource base, attached to a mainstream secondary school, within England;
- To be integrating into the mainstream school for at least one lesson per week (to enable exploration of mainstream and resource base camouflaging experiences for the girls).

### ***Pupil participants***

The eight girls were between the ages of 12 years 1 month and 15 years 2 months ( $M=13$  years 7 months;  $SD=11$  months). All had received a clinical diagnosis of autism (as reported by parents) and all had an EHCP identifying social communication associated with autism as their primary need. They all attended an autism resource base provision attached to a mainstream secondary school. Of the eight girls, six started in the resource base as they transitioned from primary school into Year 7; two started in their mainstream school, before transferring into the attached resource base during Years 8 and 9, respectively.

Details of the participants can be found in Table 1. As can be seen from the table, the majority of girls were White British and all had previously attended mainstream primary school with varying levels of support. Six of the girls had co-occurring diagnoses, which had been diagnosed before or alongside autism. Five also had siblings diagnosed with autism, however none of these currently attended the same school as the girls. All of the girls integrated into mainstream for at least one lesson, however the levels of integration varied significantly between girls (for both learning and unstructured social activities, e.g., breaktime, lunch). Note: the girls each chose a pseudonym to protect their identity.

Table 1. Pupil participant details

Name (pseudonym)	Age (years, months)	Ethnicity	School	School year	Girls' age at autism diagnosis (years)	Co-existing diagnoses	Previous school	School year started in RB*	Integration to mainstream	
									Class RB:M	Social RB:M
Miranda	12,1	White British	One	Year 7	10	Sensory processing	Mainstream primary	Year 7	12:88	90:10
Summer	13,4	White British	One	Year 8	9	None	Mainstream primary (1:1 support)	Year 7	12:88	80:20
Helen	14,0	White British	One	Year 9	12	Anxiety, ADD (pending)	Mainstream primary	Year 9	12:88	100:0
Holly	12,11	White British	Two	Year 8	7	Anxiety	Resource Base attached to mainstream primary	Year 7	5:95	75:25
Nia	14,1	White British	Two	Year 9	10	None	Mainstream primary	Year 7	60:40	95:5
Alice	13,5	White British	Three	Year 8	9	ADHD	Mainstream primary	Year 7	95:5	20:80
Ivy	13,10	White British	Three	Year 9	8	Dyslexia	Mainstream primary	Year 7	60:40	80:20
Liana	15,2	White European	Three	Year 10	7	Genetic condition	Mainstream primary	Year 8	80:20	100:0
Note: Attention Deficit Hyperactive Disorder (ADHD) and Attention Deficit Disorder (ADD) (ICD-10). RB = resource base, M = mainstream, Social = unstructured lunch and break times.										

In light of the heterogeneity of autism, it was important to characterise the cognitive and behavioural traits of the girls who participated in the study, to provide a clearer picture of the sample. The Friendship Qualities Scale (Bukowski et al. 1994) was chosen to characterise the girls' friendships, as social relationships are considered a key motivator for camouflaging (Hull et al. 2017). The Social Communication Questionnaire (Lifetime) (Rutter et al. 2003) was chosen to provide clarity regarding the girls' current and previous developmental social communication profile. The Wechsler Abbreviated Scale of Intelligence 2nd edition (WASI-II) (Wechsler, 2011) was used to characterise the girls' learning profiles, as cognitive abilities have been suggested to impact on the ability for autistic individuals to camouflage (Dworzynski et al., 2012; Kreiser & White, 2014). Appendix B presents information on each of the background measures and Table 2 presents the girls' scores across these measures.

Table 2. Pupil scores on background measures.

Name	WASI-II score	SCQ score	FQS Score					
			Companion	Reduced conflict	Help	Security	Closeness	Total
Miranda	108	20	4.0	4.0	4.8	5.0	5.0	22.8
Summer	101	8	2.8	1.5	3.6	3.4	3.8	15.1
Helen	72	10	3.8	3.2	4.4	3.2	4.4	19
Holly	75	15	4.3	2.7	2.4	2.6	3.8	15.8
Nia	92	9	2.5	2.7	3.8	3.6	3.2	15.8
Alice	77	14	3.3	3.7	3.4	4.4	3.8	18.6
Ivy	103	16	2.3	2.5	2.4	2.4	3.8	13.4
Liana	74	8	1.3	4.0	2.6	2.0	3.6	13.5
Mean	87.75	12.50	3.04	3.04	3.43	3.33	3.93	16.75
SD	14.89	4.41	1.01	1.01	0.91	1.01	0.54	3.19
Range	72-108	8-20	1.3-4.3	1.3-4.3	2.4-4.8	2.0-5.0	3.2-5.0	13.4-22.8
Note: Social Communication Questionnaire Lifetime (SCQ) (Rutter et al., 2003) Wechsler Abbreviated Scale of Intelligence 2 <sup>nd</sup> edition (WASI-II) (Wechsler, 2011) Friendship Qualities Scale (FQS) (Bukowski et al. 1994)								

The cognitive assessment WASI-II (Wechsler, 2011) showed that four of the girls scored comfortably within the average range of cognitive abilities (90-109). The other four girls scored below average, with scores between 72-77,

indicating that alongside their social and communication presentation they presented with greater learning needs than the majority of their peers.

The parent-reported SCQ (Rutter et al., 2003) scores revealed that only three of the girls obtained scores above the suggested cut-off score of 15 (indicative of possible autism), with five girls scoring below this cut off. Given that all the girls have clinical diagnoses of autism and are currently attending a specialist provision with a primary need of autism, the SCQ scores were used to characterise the social communication presentations of the girls, but none were excluded from the sample based on this. This is discussed further in the section 5.4 (Limitations).

The girls rated their friendships on the FQS (Bukowski et al., 1994) across five qualities: companionship, conflict, help, security and closeness. Across all scales, the girls received an average score above 3.00, indicating that they rated the quality of their friendships positively. The highest rating of 3.93 referred to the quality 'closeness'. Bukowski et al. (1994) describe the 'closeness' quality as underpinned by the participants' feelings of acceptance, validation and attachment, which measures their experience of affection and closeness with their friends.

### ***Parent participants***

One of each of the girls' parents participated in the study. Where appropriate, school contact was made to both parents requesting for either parent to participate, but in all cases the mother took part in the interview and completed the questionnaires. Six parent participants were between the ages of 40-49 years, while two were between the ages of 30-39 years.

### ***Educator participants***

The choice of educator interviewed alongside each girl was decided by the resource base senior lead, who nominated an educator that worked closely with each girl in both the mainstream and resource base contexts. TAs, rather than teachers, were identified due to their involvement supporting the girls' learning and social interaction across the different school contexts. Eight educator interviews were completed, one for each girl. One educator was interviewed

twice, with each interview focusing on a different girl. Six of the educators were TAs that work closely as the designated 1:1 with the girls, in both the resource base and mainstream lessons. The other educator was a senior teacher and autism lead who had a strong rapport with one of the girls and had previously supported her in lessons. All educators had been working in their role within the resource base for between 1 and 5 years, and all had been in previous similar roles within mainstream schools prior to working in the resource base. The length of duration working with the pupils ranged from 4 to 36 months ( $M=18.38$ ,  $SD=12.4$ ).

### 3.5 School contexts

The girls were in one of three resource bases, all of which required the pupils to have an EHCP specifying social and communication needs associated with autism as the primary need. They also required the pupil's academic achievement to be within the range seen within the mainstream school. Table 3 describes key demographics of each school, alongside the national average.

Table 3. School demographics

School	Approx. no of pupils on roll	Approx. percentage eligible for pupil premium funding	Approx. percentage SEN - EHCP	No. pupils in resource base Boys: Girls	Current OFSTED grading
School One	730	8%	4% EHCP	12:5	Good
School Two	1020	18%	3% EHCP	17:10	Good
School Three	1250	22%	8% EHCP	38:18 9:5	Requires improvement
National Average	965	15%	3% EHCP		

*Source: National Statistics - Schools, pupils and their characteristics: January 2019; School published figures September 2019.*

To characterise the different resource base contexts, information outlining each school was gathered via researcher observations, demographic questionnaires and Ofsted reports. These included each resource base's position within the wider school, and their physical resources, environmental adaptations and approach to inclusion.



### ***School One***

School One has approximately 730 pupils (as of September 2019) across years 7-11. The autism resource base currently supports 17 pupils (12 boys, 5 girls). The school also has an informal nurture provision for 'vulnerable' pupils, which is situated alongside the resource base and shares a designated outside social area. The resource base is in a separate building adjacent to the main school.

Resource base pupils have daily tutor time in the resource, before attending mainstream lessons for everything except modern languages, which are replaced with individual or small group interventions and support. Senior staff members are based in offices in the resource base. All mainstream classes have a TA and most resource base pupils join mainstream lessons with an assigned TA to support.

### ***School Two***

School Two has approximately 1020 pupils (as of September 2019) across years 7-13, inclusive of sixth form. The autism resource base currently supports 27 pupils (17 boys, 10 girls). The resource base is situated on the ground floor of one of the school buildings, with mainstream lessons on the floor above and outside playground space shared with the wider school. Resource staff offices are positioned in the centre of the space, enabling pupils to access support as needed. Resource base pupils have daily tutor time in the resource and, similar to school one, are timetabled to attend mainstream lessons for everything except modern languages. Each resource base pupil has a TA assigned to support them during mainstream lessons, but the mainstream school does not have TAs for other pupils.

### ***School Three***

School Three has approximately 1250 pupils (as of September 2019) across years 7-13, inclusive of sixth form. The school is organised into four mini schools within the main building. One of these mini schools includes two integrated autism resource bases, which share physical space and leadership. Seventy pupils attend the bases, separated according to pupil need and expected ability to manage inclusion in mainstream. The larger resource base has 56 pupils

attending (38 boys, 18 girls) and teaches the majority of lessons (including English, Maths and Science) within the resource base. Where possible, pupils in years 7 and 8 join mainstream lessons for creative and practical subjects, such as PE, Art and Music. In year 9 and above, the pupils join mainstream lessons for their General Certificate of Secondary Education (GCSE) examination options.

The smaller resource base has 14 pupils attending (9 boys, 5 girls). Formally, these pupils are expected to integrate into mainstream lessons for all but modern languages. However, in practice, the distinction between the resource bases and levels of integration is highly individualised, with each pupil's timetable personalised to their social communication and learning needs. When integrating into mainstream lessons, all resource base pupils have the support of a TA. Within the resource base lessons, each class has one TA for every five pupils.

Further information detailing the school contexts, and the researcher's reflections on these, is included in Appendix C.

### **3.6 Materials**

#### ***Qualitative measures***

The interview and observation schedules were designed in consultation with research supervisors and were informed by the combined findings from relevant studies exploring camouflaging for adolescent girls.

**Semi-structured interviews.** When developing the interview schedules, initial questions were constructed to be open-ended, short and neutral, enabling participants to provide their perspectives, while reducing interviewer influence. Braun and Clarke (2013) recommend avoiding multi-step, unclear and long questions, as well as jargon and leading language. This was especially important due to the girls' social communication and learning needs. All interviews began with introductory rapport building, during which the researcher explained the purpose and structure of the interview. Each interview then included a series of questions exploring friendships, the girl's experience of school, and coping skills (including camouflaging). All interviews culminated with a closing 'clean-up' question (Braun & Clarke, 2013), checking whether

participants had anything further to add to their experiences of camouflaging, autism and school.

***Pupil interviews.*** To ensure that the pupils' interview schedule was accessible to them, it was constructed around their likely strengths and needs, based on age and diagnosis (Coates & Vickerman, 2013). The pupils' semi-structured interviews consisted of three parts: interests and friendships, camouflaging, and school experiences. These were designed to get a holistic picture of the girls' school experiences and the camouflaging strategies they used. The interviews incorporated inclusive approaches to support the girls to engage and encourage them to reflect on and communicate their experiences (Curtis et al., 2004; Winstone et al., 2014).

Initially, the girls answered a series of open-ended questions, designed to find out about their interests and friendships (e.g., 'Can you tell me about yourself?' and 'Tell me about your friendships?'). Additional questions then prompted for more details and probed specific areas (e.g., 'What are your interests?' and 'What do you do with your friends?').

Next, the girls completed a visual scaling activity, adapted from the Camouflaging Autistic Traits Questionnaire (CAT-Q) (Hull et al., 2019). The CAT-Q is based on autistic adults' experiences of camouflaging and has excellent reliability (0.94) for measuring camouflaging in this group. The questions were adapted for the younger age of the pupils in the current sample by reducing the language and processing demands. Adaptations involved simplifying the questions and supporting these with visual cartoons, as well as reducing the original seven-point scale to a visual four-point scale (Never, Sometimes, Often and Always). This adaptation aimed to facilitate understanding and communication for the girls during their interviews, and there was no intention to standardise this. An example of the adapted visual scaling cards is presented in Figure 4, and the complete resource is provided in Appendix D.

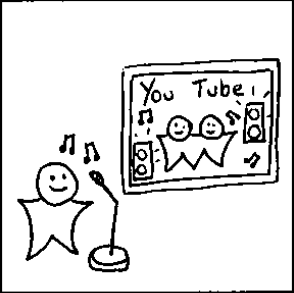

CAT-Q items (Hull et al. 2017)	Simplified visual questions in the current study
I learn how people use their bodies and faces to interact by watching television or films, or by reading fiction	 <p data-bbox="962 551 1241 667">Watch people on TV or You Tube and try to copy their behaviours?</p>
I have developed a script to follow in social situations (for example, a list of questions or topics of conversation)	 <p data-bbox="962 972 1241 1088">Try to follow rules or patterns to help get along with other people?</p>

Figure 4: Examples of adapted visual scaling cards

The girls' scaled responses were used as prompts when exploring their camouflaging experiences, with questions such as 'You scored this card as an 'always', can you tell me more about the times you hide your interests?'. Appendix E shows each girl's scaled responses.

Finally, the girls were asked about their school experiences. Pupils were asked to describe their ideal school, either verbally or through drawing and writing. This activity was adapted from Moran's original Drawing the Ideal Self (2001) by Williams and Hanke (2007), who introduced Drawing the Ideal School as a tool to explore the experiences of autistic pupils who attended mainstream secondary school. The approach was originally derived from Personal Construct Psychology (PCP) (Kelly, 1955), which aligns closely with the social constructionist perspective, positioning behaviour as a response to the way we make sense of the world. This is particularly important when exploring the girls' perspectives of school and their experiences of camouflaging social behaviours in response to the context of school.

Girls were asked to describe a school they would like to go to, including the other pupils and staff, as well as activities and the physical features of the classroom and wider school. Questions included: 'what would you put in your ideal school?', 'what are your favourite lessons?', 'are there any parts of school you don't like?' and 'how are the resource base and mainstream school different?' Additional questions then prompted for further information, such as, 'what is it about Maths that you like?' Appendix F shows the complete pupil interview schedule. All eight girls chose to verbally describe the features of their Ideal School, including their preferred lessons, classroom environment and relationships with peers and adults. Due to the responses all being verbal discussion, this information was analysed alongside the rest of their interview data.

***Educator interviews.*** The educator interviews were developed from literature that examined the camouflaging strategies autistic girls use to negotiate their learning and social experiences in school (Cook et al., 2017; Moyse & Porter, 2015). Questions were divided into four key sections, aiming to elicit educators' views around the camouflaging skills that the girls use to access learning and manage social interactions within the different school contexts. Section One covered the educators' perceptions of the girls' involvement in class based learning and any camouflaging skills used to negotiate this. Section Two focused on the girls' relationships, including shared interests, conflict and challenges within these, before considering camouflaging skills used. Section Three covered the girls' experiences and camouflaging in different contexts, including resource base, mainstream and home. Section Four focused on positive and negative impacts of camouflaging, alongside consideration of anxiety in school. Each question was supported by prompts that aimed to deepen the discussion. Appendix G shows the complete educator interview schedule.

***Parent interviews.*** The parent interviews were developed from literature that examined the camouflaging approaches girls with autism use to navigate social interaction both at school and in their community (Bargiela et al., 2016; Cook et al., 2017; Hull et al., 2017; Moyse & Porter, 2015). Questions were divided into four sections. Section One focused on the girls' autism diagnosis

and impact of autism on their daily lives. Section Two covered relationships, considering experiences of friendships prior to and since joining the resource base. Section Three focused on camouflaging skills used, including differences between presentations in different contexts such as home and school. Section Four covered the positive and negative impacts of camouflaging, considering when this first presented. Appendix H shows the complete parent interview schedule.

### ***Structured Observations***

Observations were completed to build a picture of the different school contexts, develop familiarity with the girls and gain an understanding of each girl's presentation, including any camouflaging behaviours. The observations were 20 minutes in duration and were completed for each girl within three different school contexts: unstructured social time, resource base lesson and mainstream lesson. These times were chosen to present a variety of contexts and peer groups, thus generating a clear picture of the girls' experiences of school and camouflaging behaviours.

To provide focus, a structured observation schedule was used, adapted from the Playground Observation of Peer Engagement (POPE) (Kasari et al., 2005; 2011). The adaptation aimed to alter the schedule to accommodate the secondary school provision and learning contexts. This adaptation aimed to provide structure and focus for the observations and there was no intention to standardise this. Emphasis was placed on qualitative, contextual information characterising the girls within their school environments, rather than aiming to collect additional data. During each observation cycle, short qualitative comments were recorded, providing context to the girls' behaviour in relation to the social context around them. Qualitative comments were transcribed and included within the researcher reflection boxes. Further details of the observations, including information describing how these were adapted from the original POPE and a sample schedule, can be found in Appendix I.

### ***3.7 Qualitative Data Analysis***

The interviews varied in length between 16 to 42 minutes (M=31 minutes; SD=10 minutes) for the girls, 18 to 44 minutes for parents (M=30 minutes;

SD=10 minutes) and 17 to 38 minutes (M=22 minutes; SD=9 minutes) for educators. All interviews (except the parent online messenger) were audio recorded and transcribed verbatim.

Thematic analysis (Braun & Clarke, 2006) was used to identify patterns throughout the qualitative data and explore common experiences and understanding. Due to the exploratory nature of this research, themes were primarily drawn from inductive ('bottom-up') methods, which sought to identify patterns in the collected data without integrating these within pre-existing codes or preconceptions of the researcher. It is important to note that no thematic analysis can be fully inductive, as the researcher will bring the influences of their own theoretical perspectives (Braun & Clarke, 2006). This was further influenced by researcher observations being completed for each girl prior to analysis. This has been recognised throughout the Results chapter, with the inclusion of researcher reflection boxes, which aim to include deductive information gathered from the observations.

To ensure that the views of the girls were clearly represented, their interviews were analysed first, utilising the first four-steps of Braun and Clarke's (2006) six-step process (see Table 4 for full details). Once themes for the girls had been identified and reviewed, the educators' and parents' interviews were analysed, using the same process. Despite the girls, educators and parents having some differing perspectives around the girls' ability to camouflage, overlapping themes were found across the whole sample and the analyses were combined. Throughout this process, a note of inconsistencies and tensions was kept, identifying any perspectives or areas which did not align. This resulted in each theme being reviewed and extended, and an additional sub-theme being added to capture parental experiences of diagnosis and early support. The final two steps were then completed with the entire dataset. The decision to combine analysis of multi-informant perspectives in this way has been established within the literature (Calder et al., 2012).

Table 4. Thematic analysis process

Phase	Description of each step implementation
Phase 1: Familiarising myself with the data	I conducted all the interviews and transcribed them verbatim, developing familiarisation with the dataset. All transcripts were further checked alongside the recordings to confirm accuracy. Prior to beginning the formal coding process, I repeatedly read the transcripts, immersing myself in the interview data. I made informal notes that were subsequently used to generate ideas for coding.
Phase 2: Generating initial codes	Each transcript was fully reviewed and given equal attention throughout the coding process. Initial codes were generated inductively, following the themes and patterns that were identified. To retain context, such as school provision, I kept parts of the surrounding data (see Appendix J for a sample of a coded interview section).
Phase 3: Searching for themes	Codes were organised into possible themes, and extracts of data were reread to confirm that they fitted within the coherence of the theme. Where data did not fit, the theme was either reworked or the data extract was removed.
Phase 4: Reviewing themes	Themes were refined, to ensure that each was clear and distinct from the others. The entire dataset was reviewed, to ensure that the themes cohered meaningfully with the data, and to code data that may previously have been missed. This approach follows the recursive process of thematic analysis that Braun and Clarke describe. At this stage, codes and themes were reviewed by both my research supervisors and two TEP colleagues, to ensure each theme and subtheme was distinct and coherent. This refinement and consultation process is recognised as an important way of increasing credibility during data analysis within qualitative research.



Phase 5: Defining and naming themes	The themes and subthemes were named according to what aspects of the data they encapsulated, summing up what made them relevant and why. To examine how each theme fitted within the wider narrative of these data, a detailed and comprehensive analysis was written for each theme, drawing together the subthemes. Overall, four themes and thirteen subthemes were generated.
Phase 6: Producing the report	The Results chapter describes each theme and the related subthemes. Each theme is supported by a thematic map. Illustrative quotes are included throughout the descriptions. The quotes include pseudonyms, chosen by the participants, to identify the quotes while safeguarding their anonymity.

### ***Transparency, credibility and trustworthiness***

Yardley (2000) proposes that coherence, transparency, rigour and commitment underpin the quality of a qualitative study. Coherence and transparency refer to the congruence between methodology, theory and reflexivity, which recognise the importance of transparent and detailed description for developing clarity and coherence. Rigour and commitment are concerned with credibility, which is underpinned by consideration of the consistency and accuracy of the research process and findings (Guest et al., 2014). Further information describing how this research enhanced its transparency, credibility and trustworthiness can be found in Appendix K.

## **3.8 Procedure**

### ***Pilot***

To support the construct validity of the study, the exploratory measures were piloted before commencing data collection. All aspects were piloted with three autistic boys (12,14,15 years), who attended an autism resource base that had initially agreed to participate in the research but was unable to (due to having no autistic girls attending). The pilot was not completed with autistic girls, due to the limited number of girls with autism attending resource bases. This meant

that all eight girls who indicated willingness to participate in the research were included in the main data collection.

Several amendments were made following feedback from the pilot:

**Visual Scaling Activity** included six re-drawn cards, three due to the pictures being identified as confusing and three due to changes in the text to make the associated comment more specific. All three pupils expressed uncertainty with the seven-point measurement scale from (1) Not True to (7) Very True, and how they would identify the difference between two numbers. As previously explained, this was amended to be a four-point scale, with each point supported by a written and visual prompt.

**Interview Schedule** amendments were primarily made to the final activity, the Ideal School, as none of the boys were keen to draw their responses, preferring to verbally describe them. One boy in particular expressed his anxiety at being requested to draw or write responses in school. This feedback resulted in adaptations to this activity, providing creative materials and encouraging the girls to express themselves however they felt most comfortable.

**Observation schedule** was piloted with each of the pupils during unstructured social time and a mainstream lesson. This revealed significant variation between the different social and lesson contexts, even within the same school. This resulted in the decision to prioritise the gathering of information around how the girls present in different contexts, using this to inform the semi-structured interviews and characterise each school context (rather than using the observations to generate additional data).

### ***Participant procedure***

The data collection procedure is shown in Figure 5.

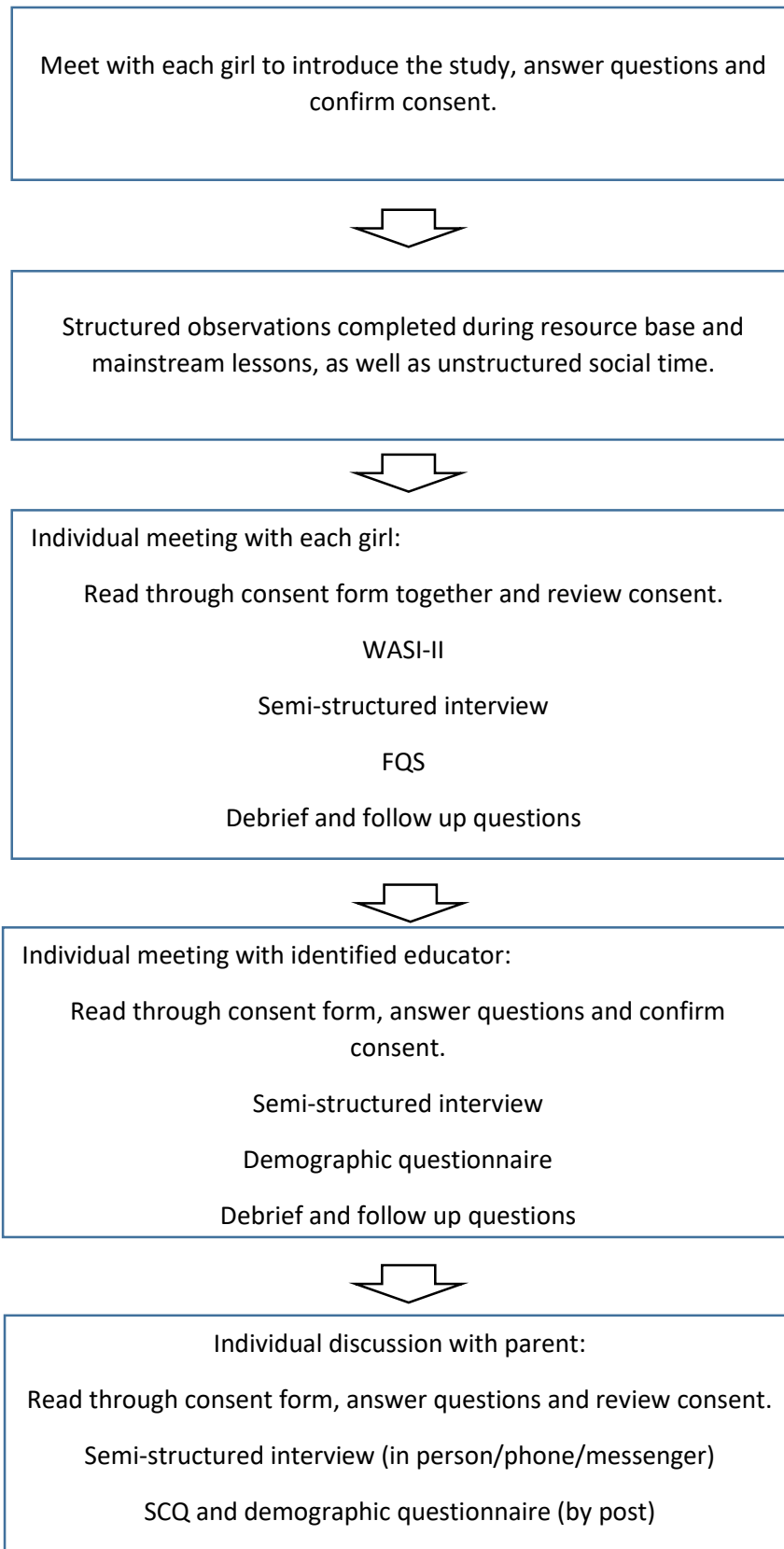


Figure 5: Data collection procedure

### ***Pupil procedure***

Prior to data collection, I met with each girl to introduce the research, explain the procedure and confirm their consent (see Appendix L for information and consent). Girls were told the purpose of the audio recording and, after asking permission, all agreed to their interview being audio recorded.

Data collection from the girls took between 50-75 minutes. Depending on individual need and constraints of the school timetable, this was either completed in one or two meetings. Six of the girls completed all aspects during one 60-minute lesson, while two girls required a short second meeting with the researcher later the same day, to complete the FQS questionnaire.

### ***Educator procedure***

Following completion of the girls' data collection, I met with the educator linked to each girl. All meetings took place in school during working hours (either during free periods, lunch, or during lesson time with pre-arranged cover). The meetings took between 25-45 minutes and were conducted in a quiet private room. Two interviews were interrupted due to staff shortages and were completed over two meetings on the same day. Initially I introduced the research, explained the procedure and confirmed consent (see Appendix M for information and consent). All educators completed the interview first, followed by providing demographic information about them and their role, and information regarding the resource base provision.

### ***Parent procedure***

Initially I introduced the research, outlining the procedure and answering questions before confirming consent (see Appendix N for information and consent). The mothers of all eight girls initially participated in the interview, before they completed the Social Communication Questionnaire (SCQ) (Rutter et al., 2003) and a demographic questionnaire. Due to their caregiver role and personal needs, all parents were given the option to complete the interviews using the communication method they found most convenient. Two parents chose face-to-face interviews, five completed the interview by phone and one parent participated using online messenger. All spoken interviews took between

40-60 minutes, while the online messenger interview took 28 minutes. Where I did not meet directly with the parents, school staff sent the questionnaires home and I subsequently collected these from the school.

### **3.9 Ethics**

Ethical approval was obtained via the Department of Psychology and Human Development at UCL Institute of Education, University College London (see Appendix O for details).

Accessing the voices of girls with autism within specialist provisions presents methodological and ethical challenges. Alongside their social and communication difficulties, several of the girls have additional learning needs, meaning that it is possible they could have found the concept of camouflaging strategies complex and difficult to understand. In addition, in-depth interviews, which are reliant on social communication skills, could have resulted in difficulties in expressing their views and experiences. To reduce these concerns, inclusive approaches that aimed to support the girls' communication preferences and needs were used throughout the interviews, with creative and visual methods used to develop rapport, support understanding and elicit the girls' views. All materials were piloted and reviewed according to pupils' preferences for sharing their views. Throughout the data collection process, I used my professional expertise as a trainee EP to monitor the girls' involvement with the tasks, supporting them to feel confident and comfortable to share (or not share) their views.

#### ***Informed consent***

An important aspect of ethical research is ensuring informed consent. This poses additional challenges for vulnerable groups, such as individuals who have social communication and learning difficulties. Consent was initially sought from schools and parents, before pupils were approached. All standard ethical expectations for psychological research (e.g., right to withdraw, anonymity) were followed (British Psychological Society, 2014). Informed consent for the girls was assisted by including simple and clear visual consent forms, shared at the beginning of the study and reviewed together at each stage. Visual prompts including a traffic light (red/green) card system remained

on the table throughout, enabling the girls to immediately stop the activity without requiring verbal communication. The girls' assent to participate was closely monitored throughout the process. As previously indicated, the pupil consent form can be found in Appendix L.

### ***Sensitivity of topic***

Social interaction can be challenging for individuals with autism, and many experience co-existing anxiety. This research focused on potentially sensitive issues (e.g., friendships, coping skills) and there was a possibility that the girls could have become anxious when discussing this. Throughout the research, the girls wellbeing remained the primary focus. The girls were all given the option to have a member of school staff or parent sit in on the interview. However, they all chose not to take up this option and appeared confident and comfortable to access each part of the study. Further details of the ethical considerations that arose from the study, including confidentiality and data protection, and the factors implemented to address these, are described in Appendix O.

## Results

### 4.1 Chapter summary

This chapter presents the combined qualitative findings from all the participant groups. Due to the similarities between participant group narratives, these were analysed together using thematic analysis (as outlined in Section 3.7). Four themes and thirteen subthemes were identified (Figure 6). In this section, each theme will be introduced, with the associated sub-themes described, using illustrative quotes. Each theme will conclude with researcher observations of the girls within the different school contexts of the resource base and mainstream. These are collated in separate boxes titled 'Researcher Reflections from Observations', positioned at the end of each theme.

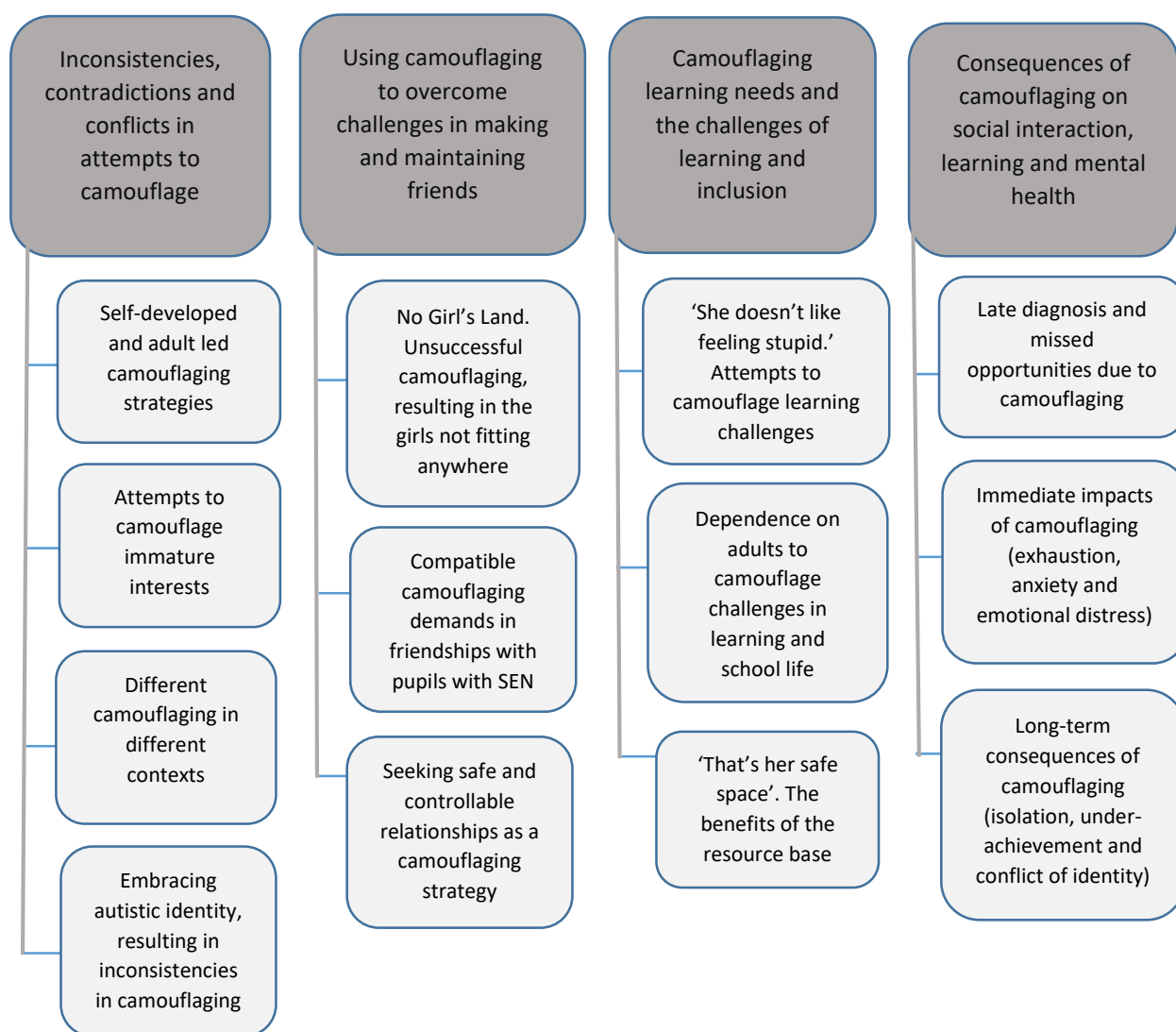


Figure 6. Thematic map

## 4.2 Theme 1: Inconsistencies, contradictions and conflicts in attempts to camouflage

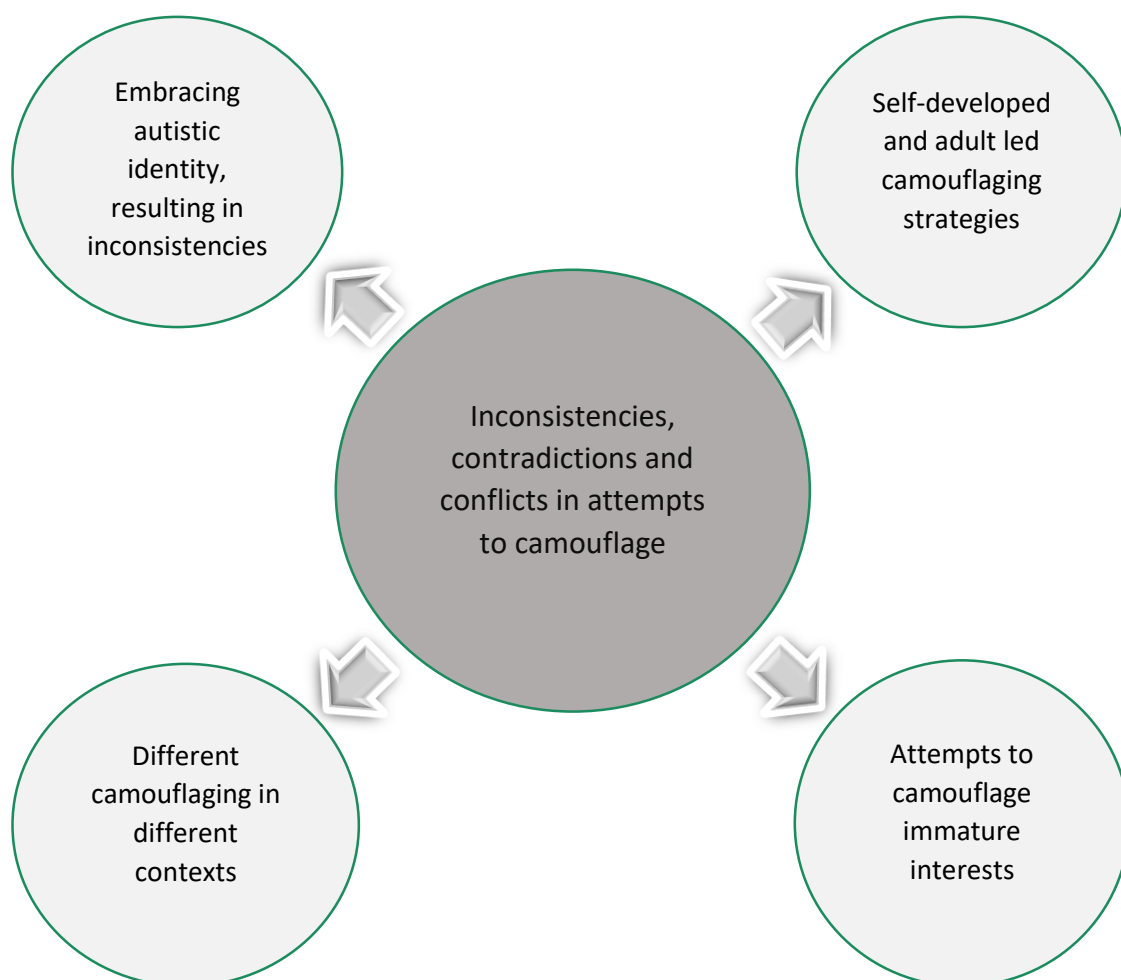


Figure 7. Theme 1. Inconsistencies, contradictions and conflicts in attempts to camouflage.

### ***Theme introduction***

This theme refers to the girls' attempts to use a range of strategies to camouflage their social difficulties and autistic behaviours, and the inconsistencies and contradictions that this revealed. The girls described their reasons for camouflaging as avoiding bullying, or being singled out and embarrassed: 'I smile and nod, like I know what they're talking about, but I really don't.... I don't like it because I worry they might laugh at me' (Liana). All of the girls spoke of experiencing verbal bullying and embarrassment, and a few expressed fear of physical bullying: 'Some of the kids found out that this one



girl had autism, who didn't look it, and then they started, they started attacking her' (Summer).

Despite their attempts to present as socially competent, all of the girls showed inconsistencies and contradictions in their ability and desire to blend in; clinging to their (often immature) interests and embracing some aspects of their autistic identity and the value of being different. These difficulties resulted in conflicts between their individual needs, adult and self-led expectations, and lack of sophistication in their understanding of social interaction: 'Sometimes I might laugh a bit, not really understanding, and then after I might ask. I might just say I don't get it' (Ivy). These challenges became more pressing in the mainstream environment than in the resource base, where the demands were less complex.

Educators believed that the girls had much less need to camouflage within the resource base, but the girls reported camouflaging in all school environments. Where the girls showed inconsistencies in their ability to blend in, their educators often reminded and modelled behaviour that enabled this. At times, the girls showed insight and anxiety regarding the effectiveness of their camouflaging.

'Cause I feel sometimes if I don't laugh at the joke, everyone- It's like it's something everyone's gonna get and I don't get it. I just pretend to laugh 'cause I feel, like, if I don't laugh they might think it's a bit weird that I'm not laughing. If it's like a joke that everyone else understands'.  
(Liana)

Despite these inconsistencies, they often believed that their camouflaging was successful. Many parents observed the inconsistencies that their daughters showed in their ability to camouflage, and did not realise that the girls were attempting to blend in. Some expressed the belief that the girls were incapable of mastering the complexities of camouflaging and were unaware of the emotional demands of attempting this upon their daughters, especially as this was often unsuccessful. These data are elaborated in the subthemes presented next.

***Subtheme: Self-developed and adult led camouflaging strategies.***

Most of the girls described self-developed strategies to camouflage, such as using their phones to avoid conversation and using distracting techniques to remove the focus from them: 'Like I try to hide from talking to people by looking busy on my phone, and I'm just like not looking so they leave me alone' (Nia). Parents and educators noted that these strategies were unsophisticated and intermittent, undermined by the girls' challenges in understanding aspects of complex social interaction, following them through and generalising them:

'She is so good at...superficial introductions, she can totally do that but what she can't do is develop those friendships further...She's learned that bit and then we're stuck...she can't get beyond that point with typically developing peers' (Helen's parent).

At times, the girls reported attempting to conceal unusual or repetitive behaviours associated with their autism: 'I try and hide... I might still do it, just make sure people aren't seeing... like running in the playground' (Ivy). Some of the girls recognised that their strategies involved a complete change of identity:

'Sometimes I try to change how I react. So like, I change my entire personality...I would just get more, like, kinder and stuff...by looking at their, like, characteristics. It's almost like a scan in my head, where I see the face and then I can tell what they need, what I can do to get along with them and stuff' (Holly).

Educators (and some parents) recognised that, alongside the simpler camouflaging strategies, some of the girls attempted to use more complex approaches, like researching people's interests to underpin conversation, although without the understanding that such strategies needed to be dynamic:

'She will ask what TV or movies you like and then watch it and then will talk about it and she does that with adults and other students. It's her way of talking to people but she always talks about the same movie I had watched when I first met her... So she has a set structure and if you try to move away from it she will move back to that structure' (Ivy's educator).

Educators and parents reported that they facilitated a combination of formal social skills teaching and individual guidance, aiming to help the girls blend in. The girls recognised and acknowledged these strategies: 'I do, do that one. I try to do eye contacts and that...because I know how to talk to people now' (Alice). The parents also frequently reminded their daughters not to discuss matters that were personal to themselves or their family: 'I have to remind her not to talk too much about personal things...because she'll just spout out that she's got a period and then talk all about it' (Holly's parent). The girls also spoke about being guided not to talk about inappropriate things: 'We mustn't joke about war and stuff like that. We mustn't...Mum says it's not a joke and she's right, isn't she?' (Miranda).

Parents explained that some of the boundaries that they had put in place to safeguard their daughters were utilised by the girls as an excuse for being different, such as using a phone without access to social media:

'She's not on social media, I won't have it. She's got a Nokia 3310... she doesn't argue it that much, I think actually she finds it easier to have that boundary in place so she doesn't have to try to fit in, she can just show people her phone and blame it on me' (Summer's parent).

When the strategies were not successful, educators and parents explained how they attempted to guide the girls to moderate their behaviour to blend in, aiming to avoid situations that might result in bullying. Some educators reported that they attempted to guide the behaviour of all the pupils in the resource base, to reduce embarrassment for the pupils who were trying to camouflage:

'One of the boys...he's making silly noises...animal noises and flapping his wings...and I've had numerous conversations with him...about the fact that it makes him look odd...I said, but it's not fair for other people in the centre... And so when you've got somebody like Summer, who's trying to blend in with the norm, it doesn't help' (Summer's educator).

Parents and educators commented that often the girls found it challenging to generalise these skills appropriately and consistently into social interaction, which resulted in frequent guidance from adults: 'Because she doesn't know how to play...I'll go, "Oh, what about this? What about--?" and make some

suggestions and it's almost like a tick-box exercise and when she's done that, she doesn't know what to do' (Helen's parent).

Although girls, educators and most parents identified attempts by the girls to camouflage, and all parents attempted to guide their daughter's behaviour to follow social expectations, a few parents expressed the belief that their daughters were incapable of changing their behaviour to camouflage. This meant that they did not recognise that the girls were attempting to do so: 'No, she's just, she's just Alice. You know, I don't think she'd even be able to understand how to change to fit in, if you understand what I mean by that' (Alice's parent).

***Subtheme: Attempts to camouflage immature interests.***

The girls spoke of the challenges associated with their neurotypical peers developing different interests to them, and the struggle to camouflage their own more immature interests: 'It always seems to lead on to the subject of like boys or that...like we're talking about horses and like maybe things that have been going on over the holidays and then it leads onto that subject...Yeah it gets annoying' (Summer).

Most of the parents described how their daughters attempted to conceal interests that might be considered immature or unusual, often following negative feedback from peers. This resulted in conflict between the girls' commitment to their chosen interests and their desire to fit in:

'She loves My Little Pony, but she won't tell anyone that...she's recognising that's not necessarily age appropriate...so she won't talk about that with them, because she's scared of having the mick taken from her, but she still likes to play with them at home' (Holly's parent).

Some of the girls described their anxiety about being laughed at or teased, often using similar phraseology: 'Like 'cause if I hide my interests, 'cause I like playing Minecraft and loads of people keep taking the mick out of it' (Holly).

The parents and educators described how some of the girls attempted more sophisticated strategies to camouflage their immature interests without abandoning them:

‘Nia sort of has two sets of interests...her interests that she likes but she doesn’t tell anyone about and then the interests that she talks about. So she really loves Pokémon, but she won’t talk about it with anyone at school or that...when she is with my friend’s daughter she talks about Love Island and a cooking show, Sugar Rush, as if they are her favourite thing...I think she is a bit confused by it because she thinks she is too old but she likes it.’ (Nia’s parent)

Educators reported that although most of the girls attempted to camouflage their immature interests, they often felt conflicted by the different attitudes they perceived from peers in mainstream classes and the resource base. Educators described the conflict the girls felt when other pupils in the resource base were playing ‘young’ games and they wished to join in. They often attempted to justify their participation by explaining that the activities were not immature in this context:

‘She will avoid activities she thinks are ‘too young’ and can get frustrated that the other pupils play...she becomes conflicted because she wants to join in so she will try to argue reasons that it’s okay, for instance with Lego she uses it in the centre because it can be used for therapy so feels okay’ (Summer’s educator).

***Subtheme: Different camouflaging in different contexts.***

Educators reported that the girls attempted to camouflage their needs when they were in mainstream classes but that the girls had much less need to camouflage in the resource base:

‘I think in the base she feels very free to be herself and all that comes with that. I think when she goes out into mainstream, unless a situation arose, where she wasn’t handling it, I think she will mask more in mainstream. Just to be with her friends, you know, sitting in the canteen, which is quite a loud, messy place...she will sit there and have a conversation with her friends, and it will seem like the noise doesn’t bother her’ (Alice’s educator).

This was especially apparent when the girls were in mainstream classes: 'Slightly less (autism behaviours) in mainstream lessons, especially her childcare option... It's still noticeable when she's out in mainstream. She doesn't mask it as much when she's in the base' (Ivy's educator). Educators were clear about the value of the resource base in providing respite from the demands of the mainstream school and the consequent need to camouflage: 'She doesn't have to be out there with the pretence the whole time. So she's got that sort of like halfway house from here to school to home' (Summer's educator). Parents agreed that the resource base was essential to their daughters coping at school: 'In the resource centre, she's comfortable, but she certainly wouldn't have survived in mainstream' (Liana's parent).

Although the girls said they felt more relaxed in the resource base, most of them still reported the need to camouflage in all school settings. Within the resource base, their camouflaging was generally perceived to be more successful because of the simpler social complexity of the situation and reduced expectations from their peers and the staff: 'She's quieter in here... She likes to rule the roost a bit, I think' (Nia's educator). Most of the girls indicated that they camouflaged a lot less at home: 'at home I can be myself' (Summer). This was something that parents confirmed.

***Subtheme: Embracing autistic identity, resulting in inconsistencies in camouflaging.***

Parents reported that the girls felt that their autism diagnosis and identity permitted them to embrace certain aspects of their autism. This reduced the requirement to camouflage in a way that was inconsistent with their overall desire to blend in: 'She's...quite proud to be different and will tell people about it...she's very confident, very open and tells people information about strengths of autism and celebrities who have autism' (Summer's parent).

This autistic identity was often reported as a strength by both educators and parents, which resulted in inconsistencies in the girls' camouflaging because it validated certain behaviours associated with their autism despite undermining the girls' ability to blend in:

‘She's actually quite honest about it...but she's quite honest about everything...she'll say to you, "you know, that's because of my autism."...And it could be something totally not related to the autism at all’ (Holly’s educator).

Despite their desire to camouflage, several girls stated that they would not imitate the behaviour of others, or what they wore and how they spoke: ‘Try to copy what other people wear? No, never in a million years’ (Holly). Their educators and parents confirmed this and reported that even when the girls wished to blend in, their autism-based needs often overwhelmed their desire and ability to do so. They recognised the challenges posed by this conflict and the social anxiety that often compromised the girls’ ability to camouflage: ‘I think she just wants to fit in, but her behaviour can become too much, I don’t think she can always control it’ (Nia’s parent).

### **Researcher reflections from observations: Inconsistencies, contradictions and conflicts in attempts to camouflage.**

The inconsistencies in the girls' attempts to camouflage were frequently evident when observing the patterns of their behaviour in context. Most of the girls adjusted their body language and copied behaviour in relation to their peers. This was often visible as a secondary action, which initially revealed body language at odds with their words. This was most visible in unstructured social situations, such as Nia jumping up with excitement in response to winning a game, before referencing her peers and quickly sitting down looking uninterested.

Within social interactions, several of the girls used self-developed scripts and were observed to have superficial conversations with adults that followed a set structure and content. For example, Ivy always started discussions with set questions and comments around an identified TV programme or film. When the adult extended the conversation beyond this topic, Ivy either returned to the initial subject or physically removed herself.

During their interviews many of the girls identified strategies they used to try to fit in, especially with their mainstream peers, by hiding aspects of their interests and behaviours. However, their adherence to adult rules often conflicted with the behaviour of their classmates, meaning that they did not effectively blend in. They were observed to be inconsistent with their implementation of camouflaging strategies and were often reliant on their TAs to remind and explain the 'grey areas' of social rules. For example, Holly was encouraged to 'remember the privacy rule' when loudly discussing the details of her menstrual period and Miranda was reminded not to discuss the anatomy of the nits in her hair as 'other pupils might be mean' if they found out.

The attempt to hide behaviours associated with autism was observed across all school contexts but increased within mainstream situations. Despite this increase, the efficacy of the camouflaging strategies remained inconsistent and often ineffective. For example, within her mainstream Childcare lesson, Ivy sat on her hands and avoided moving them until the end of the lesson, when she washed them and then spent several minutes waving them dry. Although Ivy validated the hand waving as necessary, her mainstream peers noticed and commented. In comparison, within the resource base, Ivy frequently waved her hands, appearing less concerned about hiding this.



### 4.3 Theme 2: Using camouflaging to overcome challenges in making and maintaining friends.

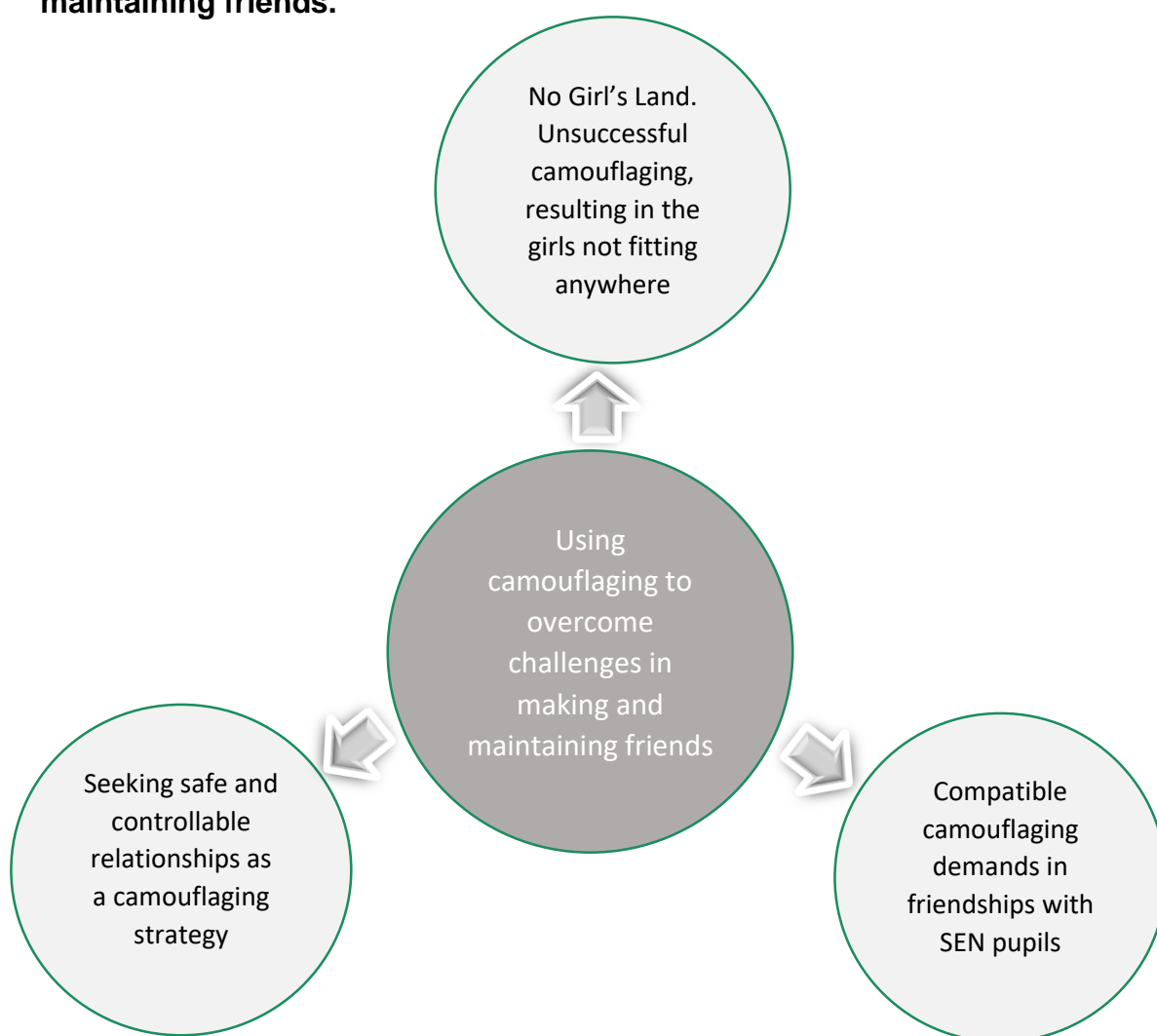


Figure 8. Theme 2. Using camouflaging to overcome challenges in making and maintaining friends.

#### Theme introduction

This theme considers the girls' use of camouflaging strategies to reduce and conceal their significant challenges in making and maintaining friendships. These difficulties were long-term and, for many of the girls, had improved since they entered the supportive environment of the resource base.

Despite their attempts to camouflage, many of the girls expressed the belief that they did not 'fit in' anywhere. They believed that they were not 'normal' enough to maintain successful mainstream female friendships and were frustrated by the limitations of other social relationships. They were often keen to reduce or

reject their association with the resource base pupils that they deemed to be more visibly needy:

‘I’m quite different, like they’re kind of more like, not in a horrible way, they’re more like special in their needs...there’s some kids who talk like babies like, “wa wa wa.” They talk like that but I’m not’ (Nia).

The most successful friendships, which were valued by the girls, their parents and educators, were friendships with small groups of mainstream SEN pupils. Other girls attempted to alleviate their lack of belonging to a friendship group by retaining the resource base friendships in which they were originally placed, by seeking friendships with different generations, or by disappearing into fantasy friendships.

For all the girls, their relationships with the resource base staff were fundamental, and this was reflected in the narratives of girls, their parents and educators. Some of these girls projected themselves into the adult role and considered themselves on friendship terms with the resource base staff. These data are elaborated in the following subthemes.

***Subtheme: No Girl’s Land. Unsuccessful camouflaging, resulting in the girls not fitting anywhere.***

‘She tries to be more normal than normal...I think that (her brother’s autism) affects her view of autism and she sees similar needs in the centre, which she will try to separate herself from and fit with what she thinks is normal’ (Summer’s educator).

Many of the girls and their parents highlighted the vulnerability of the girls being neither ‘normal’ enough to fit into mainstream nor different enough to feel fulfilled by friendships with other resource base pupils. They noted that, despite attempts to blend in, they were unable to make or maintain the friendships that they desired with neurotypical girls:

‘Camouflaging hasn’t helped her to make friends with girls and I think that is her biggest challenge. She doesn’t really get on that closely with the other students in the centre and I know she finds it upsetting that

she has not got any friends that she really gets on with, you know like a best friend' (Nia's parent).

Most parents stated that the girls' friendships had improved since joining the resource base. However, many girls rejected the identity of being the same as other pupils in the base: 'I'm different to the others in the centre 'cause they have lots of needs and don't know how to fit in' (Summer). The girls reported that they found the needs of other resource base pupils challenging:

'When it comes to my classmates (resource base) they're very, very weird...they act weird and they are very loud and annoying...they shout and they, well one boy always makes train noises and everyone looks at him. My classmates are annoying to my brain' (Alice).

The girls reported that their ability to camouflage was undermined by being associated with the pupils in the resource base, which meant that their mainstream peers regarded them as different:

'I don't really like, like not in a horrible way, I don't really like... some of the students. Like the resource centre students because... the students in the (mainstream) class always like compare us and I'll be like, I'm so much different to them lot' (Nia).

Parents believed that challenges to the girls' attempts to make friendships with other girls were compromised because the pupils in the resource base were predominantly boys: 'the lack of female friendships is still a challenge and that's because she's the only girl in her class' (Ivy's parent). Parents and educators reported that this made camouflaging even more challenging when the girls joined mainstream lessons, because they were part of a group of resource base boys. This made it even harder to make successful social relationships with their female peers: 'I mean it's difficult where she is at the moment in the resource base... There's very limited girls in there, it's mostly boys' (Liana's parent).

Conversely, some parents expressed concern that, in Year 9, as the girls moved from generic studies to focus on their choice of GCSE examination subjects, the social support offered by the group of SEN pupils integrating together often

disappeared. They noted that this particularly impacted their daughters because of the subjects they chose: 'They are not all doing the same options, she is doing childcare and I don't think any boys chose that (Ivy's parent). The girls also spoke of this, recognising the challenge of making new friendships within their option classes: 'When I first started my option Travel... there was these girls that I knew. But they didn't necessarily know who I was and they never really spoke to me' (Liana).

All the parents identified that the friendship challenges within the mainstream had existed throughout the girls' school lives: 'Certainly the challenge is for her at this time, and has been for years, are being able to make friends, being able to feel that she fits in somewhere' (Liana's parent). Both parents and educators agreed that these social difficulties had increased as the girls progressed through school, and the camouflaging demands necessary to fit in with neurotypical girls became more complex and subtle:

'I think that's where we noticed the divergence between friendship at primary school...and then to secondary school because all of a sudden, it was like her typically developing peers just blossomed...and girls' behaviour becomes very nuanced, doesn't it? And it can be just a look...and she can't read that' (Helen's parent).

***Subtheme: Compatible camouflaging demands in friendships with SEN pupils.***

Some of the girls, their parents and educators spoke of positive friendships with pupils identified with SEN, often those with learning needs, who were predominantly in the main school. Within this, there was some preference towards male friendships: 'If she's going outside, she'll mainly be around the boys... I reckon because she finds them easier to talk to because she is quite tom-boyish in her behaviours' (Nia's educator).

The parents and educators identified several reasons for these SEN and male friendship choices, which had their roots in the girls' immature interests and social interaction abilities: 'She's grown up a lot. I mean, she's still quite immature...You know, still quite babyish sometimes...compared to a lot of her (neurotypical) peers' (Holly's educator). They reported that the success of

these SEN friendships was due to the reduced social interaction demands, which resulted in less complexity in camouflaging behaviour: 'Helen is Helen with her peers...I think she would be able to look round and probably a number of her friends would be in a similar boat' (Helen's parent). The girls described that they often retained the early friendships that were facilitated with SEN pupils when they transitioned into their school: 'We were all in one class together (SEN) and so, we just stayed friends...because like we've stayed friends, like three years, I think it is safe...I think if they didn't like me, I think they would have told me' (Helen).

Parents expressed how highly they valued the girls' ability to make and retain friends, especially with mainstream pupils:

'Since she started this school, her friendships are much better...She has a couple of close friends, mainly boys, and what she classes as a boyfriend...and he's very lovely. She seems to have become part of a group of similar children, I would say, and I know they're in the mainstream, but they seem to be relatively similar and also quite nurturing' (Holly's parent).

***Subtheme: Seeking safe and controllable relationships as a camouflaging strategy.***

The girls, parents and educators described different camouflaging strategies that the girls used to explore social interaction and relationships in safe, controllable situations. Most of the parents expressed concern about their daughter's ability to interact with other girls of their own age:

'I think that her biggest challenge is trying to fit in, trying to fit with the others and make friends. She struggles to chat to people of her age, I think she finds it easier with adults but with other students, especially the girls, she doesn't know how to fit in with them' (Nia's parent).

One strategy that all the girls described was spending time with much younger or much older people:

'I like to play with, I sit down with Year 11's and we just sing songs together...and I enjoy it. And we enjoy each other's company...but

sometimes they can be a bit silly. Sometimes people from the centre, they open the windows and they tell me to come in, to come back in' (Miranda, Year 7).

These relationships were noted by several of the educators and parents, some of whom felt it was necessary to rein in these unequal friendships.

As well as playing with younger children, several of the girls reported choosing Childcare as one of their GCSE examination options and said that they liked looking after young children. Some parents attributed this to the simplicity of the social interaction demands with younger children, which reduced the girls' need to camouflage: 'I would say the only natural thing about Summer's social behaviour is when she's with little children, otherwise it's like she is acting each role, but she loves little children... and she's very helpful with them' (Summer's parent).

Many of the girls attempted to camouflage their friendship difficulties by identifying their TAs as friends: 'I'd get a Starbucks delivery to the school...just for me and Miss and Miss. In a room by ourselves and like no one's annoying us...and I'd have like cookies and snacks and we can relax' (Nia). The educators described the importance of developing positive and close relationships with the girls, but expressed awareness of maintaining appropriate boundaries, even when some girls were attempting to 'cross the line':

'I feel Liana gets on better with adults than she does students. Her interactions are quite grown up and she tries to, sometimes you have to go "Liana, we always talk about the line...and you're getting very close to it" ...You have to be willing to pull her up and remind her she is a student' (Liana's educator).

Another camouflaging strategy that many of the girls described was the use of fantasy and imagination to embellish and explore the narrative of their lives. They often exaggerated and lied about their role, exploring relationships and rewriting the actual event: 'When I was in my garden, because I climbed a tree and the branch snapped and I lost my eye' (Summer). 'We had huge difficulties around lying' (Summer's educator). The parents of some girls spoke of the blurring of the lines between fantasy and reality and expressed the belief that

this provided the friendship and social interaction their daughters could not achieve in real life:

‘The programmes like Balamory are all about nursery life and I think she chooses shows and books that she can relate to, like Matilda, and she will watch them time and time again. I do sometimes wonder if those (imaginary) friends are because she doesn't have that many real friends’ (Miranda’s parent).

Several of the girls spoke of their enjoyment of mainstream drama activities. Parents also reported this and described it as a positive outlet that provided an opportunity to succeed in a mainstream environment alongside neurotypical girls: ‘Her strength is actually her creativity...she's very creative, she loves her drama, and all of that, I think, comes from her autism’ (Ivy’s parent).

The narrative of one girl blurred the lines between fact and fiction so effectively that her real-life and imaginary worlds often intertwined: ‘If they laugh at me here, then the TA would chase them and shout at them. Then Josie (imaginary friend from Balamory) would get her skateboard and chase them’ (Miranda). She also reported creating imaginary ‘copies’ of people and described revised positive interactions and relationships with them:

‘Sometimes, I go off and hang out with my imaginary friends and I've got imaginary friend copy of Elena (friend from previous school), and she doesn't slap me across the face. She doesn't shout at me’ (Miranda).

**Researcher reflections from observations: Using camouflaging to overcome challenges in making and maintaining friends.**

The challenges and frustrations the girls' experienced within their social relationships were evident throughout many aspects of their observed behaviour. Most of the girls were quieter and less animated alongside mainstream peers, even when they were not directly working together. Within mainstream lessons, they often appeared inanimate and sat very still at the table, facing forwards. This contrasted to the girls' body language and behaviour in the resource base, where they moved quickly, often with exuberant actions and unusual sitting positions. For example, Alice moved between sitting with her knees up, rocking on her chair and spinning on the floor.

The girls generally appeared more confident and dominant in their interactions with other resource base pupils, telling them what to do, projecting their voices and explaining their views. They often aligned themselves with the adults, using similar language to justify their authority to instruct others. These interactions appeared more natural and relaxed, with the girls often laughing and their responses more immediate. The girls were observed frequently reporting their concerns about the behaviour of other pupils, requesting that TAs told the pupils 'to stop being weird' and refusing to sit near them.



#### 4.4 Theme 3: Camouflaging learning needs and the challenges of learning and inclusion.



Figure 9. Theme 3. Camouflaging learning needs and the challenges of learning and inclusion.

##### **Theme introduction:**

This theme considers the interaction between the girls' camouflaging, learning and inclusion across the mainstream school and the resource base. Many girls, parents and educators were focused on the importance of academic achievement, and the girls were determined to camouflage their learning needs, especially from their mainstream peers. Often the girls became trapped in a negative cycle, where the demands of camouflaging their learning needs and the anxiety associated with this, reduced their ability to learn: 'If I don't

understand a certain topic, I don't really want to do it because I...don't want to show I don't understand' (Helen).

The girls, parents and educators all identified the resource base as a positive environment for the girls' learning. However, significant levels of anxiety and learning needs became more evident as the girls began to study for GCSE examinations in mainstream classes and expectation to achieve increased. The girls reported that this pressure was increased throughout mainstream classes because of less awareness by the mainstream teachers about how to meet their individual and often subtle needs. The educators identified one of their primary roles as mediators between the girls and mainstream staff, facilitating learning and developing a strong relationship. This allowed them to recognise, and attempt to reduce, subtle signs of distress even when the girls were attempting to camouflage these.

In the early years of secondary school, inclusion in mainstream classes was often shielded by learning in a protected, self-contained group supported by a TA: 'They've just been a year group that gelled together and were happy to go out together...into the mainstream from the word go' (Ivy's parent). Although the protection of being supported by a TA was identified as positive for learning, some girls noted that this undermined their ability to be fully included in mainstream class activities. These data are further detailed in the following subthemes.

**Subtheme: 'She doesn't like feeling stupid'. Attempts to camouflage learning challenges.**

Many girls were willing to reveal a certain degree of difference that was due to their autism. However, all the girls who had learning challenges were motivated to conceal them, especially in the mainstream environment. 'I always feel like I'm gonna hide under the table... 'cause everyone's looking at me and if I make a wrong mistake everyone will laugh at me' (Holly).

Educators reported that all the girls, especially those who had challenges with their learning, aimed to camouflage their learning needs from their peers, especially in mainstream.

‘She doesn't like the challenge of being in (mainstream) classrooms...She doesn't want to fail, others to notice her...If she gets something wrong, she takes it as a direct hit...just doesn't like feeling stupid, and classes to her, are an arena for feeling stupid’ (Helen's educator).

Many of the educators identified different strategies that the girls used to hide their difficulties, such as focusing on the presentation of work: ‘The presentation and underlining, it takes such a long time...rather than the content...I think that's her coping mechanism, if she doesn't understand, I don't think she likes to admit that she struggles’ (Holly's educator). Some of the girls described their anxiety around requesting help from the teacher, especially in front of their mainstream peers: ‘I ask the teacher assistant.... I never like put my hand up, I would always wait for ages to put my hand up. I didn't wanna ask for help’ (Helen).

Many of the educators and parents spoke of the importance of academic achievement and the schools' focus on encouraging this, which increased pressure on the girls: ‘This year has been probably the biggest struggle that we've had for her whilst at secondary school...because obviously the pressure is ramped up, because they're starting to get them ready for...picking their GCSE subjects...she's very tearful’ (Ivy's parent).

Several girls reported that the growing pressure whilst studying for GCSEs in mainstream classes meant that they increased their attempts to camouflage their anxieties around learning, and were uncertain whether they were the only person in the class who didn't understand:

‘When I'm stuck I kind of look round the class to see, because if I feel like I'm the only one stuck and the rest is getting it, then I just feel a bit weird and I look around sometimes and then I think, "Oh, I'm the only one that's not getting it", but I don't know, because other people could be hiding it differently to how I do’ (Liana).

**Subtheme: Dependence on adults to camouflage challenges in learning and school life.**

‘I don't think she has any (coping strategies) that she would be able to do herself...I think her coping mechanism is find an adult’ (Ivy’s educator). All the educators reported that the girls were significantly dependent on adults to facilitate all aspects of their learning. Many of the girls spoke of their reliance on their TAs to recognise their needs even when they did not verbally communicate these:

‘If I get, like, stressed and I don't want to ask for help, I kind of look at a teacher to let them know, but there's always someone sitting behind me watching me...whoever is in there, will, come and help me 'cause they can see I'm stuck’ (Liana).

The educators described their role in anticipating the girls’ needs (both learning and emotional), by explaining work, keeping them on track and guiding their behaviour: ‘She's supported by an TA in every single lesson. In every single lesson across the board, even P.E...I'm there because you have times where things get too much around her and she just bursts into tears’ (Miranda’s educator).

Throughout the educators’ narratives, it was acknowledged that the levels of social and learning integration that the girls experienced were impacted by many factors. The educators described how, in the younger years, the girls travelled to class with a TA:

‘With the mainstream lessons they tend to wait in their classroom for the TA to come and pick them up and then take them...Some of them go by themselves especially (year) 10 and 11...but Ivy will wait and she will not leave the base until she knows who is taking her’ (Ivy’s educator).

Girls reported that they often sat in a small group with resource base pupils, often sitting together on a separate table, with TAs supporting them. Their dependence on their TA support made it difficult to sit and work with mainstream peers: ‘I’m sat away from everyone’ (Nia).

The educators spoke of the importance of a strong relationship with the girls, which, despite the girls' attempts to camouflage their difficulties, allowed the educators to recognise subtle signs of distress and know how to support them: 'It is just little signs...It is the little twitches, the little hunches, the little head down, you know, it's the tiny movements, with Helen' (Helen's educator).

The educators also identified the challenges posed when this awareness of the girls' needs was not present, or when the girl thought that it might not be. This resulted in their learning being disrupted and often occurred when there was a change in TA, or a TA that the girl did not like: 'She will use her TA, but it has to be a TA that she knows...If it's a temp, she does not like temps, she does not like new faces, almost is a bit, "Don't come near me" (Liana's educator).

Many of the educators and girls spoke of the importance of the resource base staff in mediating between the mainstream teachers' expectations and the girls' needs, which included assisting the girls to camouflage their learning needs from the rest of their class: 'I've got Miss to tell like the teachers not to pick me... unless I put my hand up' (Nia).

Despite this dependence on TAs, all the girls identified the importance of the teachers being friendly and informal. When they identified a teacher as 'shouting', it had a negative impact on their willingness to attend mainstream classes, even when it was a subject they liked: 'If I don't know what to do, I just ask...unless I'm afraid of the teacher...about 90% of teachers do shouting' (Summer).

### **Subtheme: 'That's her safe space'. The benefits of the resource base.**

All the girls spoke of differences between the learning environment in the resource base and the mainstream school: 'I prefer being here...it's just calm' (Miranda). They reported that in the resource base the classes were smaller and the staff were more aware of their needs and how to support them: 'Miss always knows how to help' (Helen). Several of the girls described a preference for accessing activities within the resource base: 'I quite like the cooking, the resource base cooking, not always the mainstream cooking... Mainstream cooking can be quite a bit of stress sometimes' (Ivy).

All the parents reported that the umbrella of support that the resource bases provided extended beyond supporting the direct needs associated with autism, and often the girls' learning needs and organisation skills were equally prioritised: 'So in the resource base, I guess they give her that sort of space and time...helping her plan...she often needs help you know, it's just to write it all down and put it on a calendar' (Ivy's parent).

All the educators agreed that the girls found the resource base a calmer environment, which was easier to learn in than mainstream: 'I mean, that's her safe space...she's free to either be happy or stressed...she can relax and learn. She doesn't have to put on the face that she does in lessons with teachers' (Helen's educator). Indeed, the girls felt that there was more awareness of their needs in the resource base than in mainstream classes, where they felt less supported: 'Miss [resource base] understands everyone's ASDs and all the TAs know what they're doing and they know exactly how to react...in the main lessons they, they sort of understand' (Holly).

All of the parents reported that their daughters had experienced a period of mainstream primary education and expressed their belief that the resource base provided a more positive and supportive environment for the girls to learn: 'They are so kind and friendly when they are chatting to her. I think it has given her some confidence, because her self-esteem was rock bottom when she started' (Nia's parent).

Some of the girls recognised their challenges with accessing the speed and complexity of the language and learning required in mainstream:

'It's much easier [resource base] than it is in mainstream, cause' teachers mostly call your name to ask you a question, everyone stops...I can see out of the corner of my eye, kind of every one person is staring at me or I can hear people talking at the back just kind of throws me off. But here they give, I am able to have a bit of time to find out like and they let me have a think and go to someone else if I don't get it and they come back to me (Liana).

Many parents noted that the girls' ability to learn had been compromised by the demands of managing the mainstream environment in primary school. The parents identified that support by the resource base in organising and facilitating their daughters to manage the school situation and their work demands had made a significant difference to improving their learning:

'She left the previous school in year 5 and she was doing Year R work...then when she did her SATS she was actually bumped up quite a few sets, because she had come along so much...if she had stayed at the other school I don't think she would have achieved GCSEs, now I think she will' (Holly's parent).

Two parents, whose daughters had transitioned into the resource base part-way through secondary school, spoke of the challenges their daughters had faced within the mainstream secondary environment, which had undermined their learning:

'She tried, she tried her utmost...that movement of the crowd, the movements of children, moving from one class to the other, that was such a major thing for Liana...she would never have survived, I'm surprised she survived the year, you know' (Liana's parent).

**Researcher reflections from observations: Camouflaging learning needs and the challenges of learning and inclusion.**

Throughout my observations it was clear that all of the girls had close relationships with the staff in the resource base and sought out these relationships during unstructured social times. The interactions between the girls and staff were characterised by humour and informality, which supported the girls' engagement. For example, Nia spent time practising hair and beauty on her TA, brushing her hair in different arrangements. Similarly, several of the girls offered and shared their snacks with the TAs. The girls' dependence on their TAs was clearly observable within lessons, especially in mainstream, and in this context, the interactions became more formal. The girls mostly travelled to lessons with their TA, and during lessons their exchanges were almost exclusively with their TA. Most of the girls had individualised and discreet ways of communicating with their TA, such as Helen who used a 0-10 code to express her anxiety, and Nia who placed stationery in different positions to communicate to her TA how she felt.

During my observations of both mainstream and resource base lessons, all the girls were focused around hiding any difficulties with their learning. This was particularly prevalent in the girls who had learning needs alongside their autism. The girls often spent extended time focusing on presentation aspects of their tasks. For example, Holly spent time rubbing out and rewriting her work, focusing on underlining and colouring each letter, which meant she did not progress past the title. None of the girls asked their TA for help, yet when the TA checked, they were often unsure of the task. Most of the girls avoided eye contact or any interaction with the mainstream teacher or mainstream peers, looking down and disengaging during group based discussions. When the girls were asked direct questions by the teacher, they often misjudged the level of detail to respond with and required TA guidance. For example, Miranda explained the entire process of chocolate making for several minutes when asked to identify a type of confectionary.



#### 4.5 Theme 4: Consequences of camouflaging on social interaction, learning and mental health.

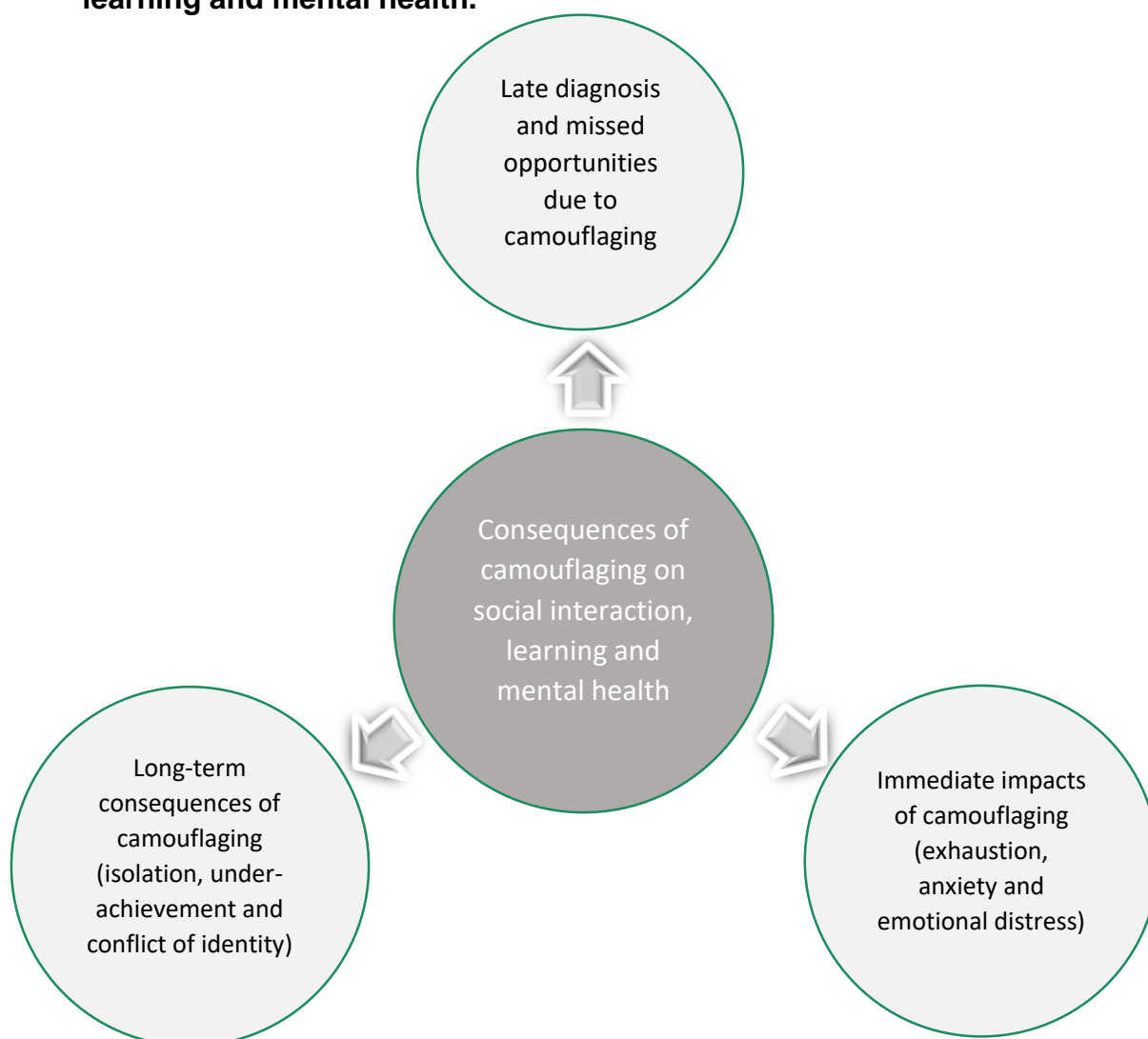


Figure 10. Theme 4. Consequences of camouflaging on social interaction, learning and mental health.

##### Theme introduction

This theme examines the challenges of managing everyday life as an autistic girl, and the impact of their attempts to camouflage their needs on their social interaction and learning. The narratives of the girls, parents and educators identified a range of immediate and significant impacts, including profound exhaustion and emotional and behavioural distress. This was mostly contained until the girls were in a situation they deemed as 'safe'. Many of the girls experienced overwhelming anxiety about camouflaging, which for some was further impacted by uncertainty about whether this was successful.

Many of the parents and educators identified the impact of the girls camouflaging their needs in primary school, which they associated with the girls' late diagnoses and missed opportunities for early support. The parents and educators held the delay in identification of the girls' needs responsible for missed social and learning experiences and reduced self-esteem and belonging. This intensified as they progressed towards secondary education. Parents reported that many of the girls had been on the verge of school refusal prior to joining the resource base.

Alongside the immediate, daily impacts of camouflaging, anxiety, and living with autism, both the educators and parents expressed concern about the wider impacts upon the girls' social and learning opportunities: 'If she can get out of those Mainstream lessons, by saying she's got a headache or she doesn't feel well, she will do...it's quite a hard environment for her to fit into' (Liana's parent). Other parental concerns centred around the girls' long-term loss of self-esteem, which resulted from feeling that they do not belong anywhere, as well as academic underachievement. These data are elaborated in the following subthemes.

### **Subtheme: Late diagnosis and missed opportunities due to camouflaging.**

Parents and educators spoke of the challenges associated with the girls' late diagnosis of autism. They attributed this to the girls camouflaging their social and communication needs, until the complexities of blending in with their neurotypical peers became too difficult: 'She was a problem right from reception class, but it took all that time to get something done. They just didn't believe it was autism till too late' (Summer's parent). The parents spoke with passion about the battle to get their daughters diagnosed with autism: 'I feel so strongly about this, the earlier that you get that diagnosis, I think, "Oh God, poor Helen, all those things that we were pushing you to do"' (Helen's parent).

Most girls were not diagnosed until the end of primary school. Both parents and girls spoke of the challenges of managing mainstream primary education, when the girls were camouflaging their needs and there was no recognition that the difficulties they were experiencing had their basis in autism: 'Really bad

because none of the staff had any autism training, so they just put me outside on an iPad' (Summer).

Parents expressed their frustration at the lost opportunities for their daughters to access the full educational and social experiences of primary education and the impact this had on their happiness and self-esteem:

'We were at crisis point as a family before anything kind of got addressed...I feel primary school was a real missed opportunity and I really feel that if we had earlier support...I just want her to fulfil her potential, but actually, the bottom line is I want her happy...and she was sad, a sad little girl for a really long time' (Helen's parent).

Some parents explained that their daughters' camouflaging of their social and communication needs, and the lack of awareness in recognising their autism, meant that the girls' difficulties were initially attributed to other causes. They reported that some of the girls had received previous diagnoses, including learning needs and anxiety, while others had their difficulties associated with family situation or behavioural needs. This resulted in many of the girls being described as on the edge of school refusal, often developing physical symptoms, such as headaches and stomach aches to avoid going to school: 'Then she went to year eight, and the wheels came off spectacularly and she became a bit of a school refuser' (Helen's parent). Several parents and girls expressed their relief that this state of affairs had improved significantly after the girls received appropriate support following their autism diagnoses: 'She was a lot happier once she started in the base...Since she has been in the base, she's never said, "I don't want to go to school"' (Liana's parent).

Many of the parents spoke of a sense of impending crisis as their daughters approached secondary school without recognition of their autism or the prospect of an EHCP and appropriate support. Parents and educators were both adamant that the girls would not have 'survived' without suitable support as they made the school transition:

'If the EHCP hadn't come through in time, she would have ended up going into mainstream, and of course we were all panicking...thinking she's not going to cope. Within two weeks she would have been kicked

out because they would just have looked at her basically as a naughty child' (Alice's parent).

**Subtheme: Immediate impacts of camouflaging (exhaustion, anxiety and emotional distress).**

The narratives of the girls, parents and educators made it clear that anxiety related to camouflaging, and anxiety due to the demands of being autistic in the school situation, were intertwined and dynamic.

'I get anxious depending on what sort of topic it is...if I get really anxious and I'm doing maths, 'cause that's a lesson I'm really good at, so if I'm doing that lesson, I can do it and I'll just forget about what they're thinking of me, but sometimes, depending on what it is, I find it very stressful, like, to not worry about it' (Liana).

The educators and parents identified several immediate impacts of the girls camouflaging their social and learning needs, alongside managing the demands of the environment: 'School is such a big and confusing place, and so her anxiety is just bubbling away under the surface and then it comes out' (Helen's parent).

A few educators and parents spoke of positive results of camouflaging, such as avoiding bullying and fitting into social interaction at the level the girls could manage: 'I think it has been good in some ways, because she doesn't stand out, so I think she is less likely to get bullied or picked on' (Nia's parent). However, the majority of the consequences of camouflaging reported by parents and educators were negative. Exhaustion was identified as having the most prevalent and powerful impact:

'When she gets back to base, back to her classroom, when she can just sort of let her shields down, she just seems, well yeah tired, grumpy, just, you know, all those sort of things that go with being exhausted. And really on edge, going to find any reason to have a meltdown, which obviously has a huge impact on her learning and whether she'll stay in the classroom' (Alice's educator).

Educators described the girls as being overwhelmed, which resulted in the camouflaging breaking down and the girls looking for an excuse for a 'meltdown'. Depending on the profile of the girl, educators reported that this included a combination of napping, crying, shouting, rejecting activities as 'stupid' or 'boring', and/or removing themselves and hiding. These immediate impacts were visible mainly, but not exclusively, in the resource base after mainstream interaction. Several parents and girls spoke of similar impacts when the girls arrived home from school, with reports of girls being exhausted, angry and having conflict with siblings: 'At home, I can sometimes be more angry. Like, if I'm angry at school, most of the time I try and hide it, but sometimes I can't' (Helen).

Alongside this, the parents spoke of their daughters' uncertainty about their success in blending in socially and camouflaging their challenges with learning, which resulted in frustration, anger and significant anxiety: 'She was very tearful, very anxious and nervous...lots of tummy aches...lots of anxiety because she didn't fit in...It was very hard for her to make any friends at all' (Liana's parent). The parents and educators recognised the high levels of anxiety felt by most of the girls and the subtlety of this presentation: 'You have to look for it...you've got to know her to know that, because she completely masks with her bolshiness' (Liana's educator).

**Subtheme: Long-term consequences of camouflaging (isolation, under-achievement and conflict of identity).**

Educators and parents recognised that because the short-term impacts of camouflaging happen on a regular basis, there are longer term consequences for both social and learning achievements. Experiences of bullying and difficulties with social interactions resulted in many girls feeling that they did not fit in anywhere, leading to low self-esteem and unwillingness to attempt new social friendships: 'I think there was a bit of bullying, not hitting or anything, but they deliberately left her out and she was upset by it. I said to go and make new friends, but she wasn't willing to try again' (Nia's parent).

Some girls described how earlier difficulties with social interactions had led to lack of confidence in trying to make new friends with their mainstream peers:

‘I just never really have like girlfriends, like friends who are girls because in year 7 I hung around and I've got like all the girls that are the popular ones, and then all of us are, just like they made my point, because one minute they like they're hating you and the next day, they're not’ (Nia).

Several parents spoke of the impact that long-term isolation had on their daughters, and the consequent effects on themselves, as they observed this and tried to alleviate the girls’ bewilderment and distress:

‘It would be a case of the old cliché part of an autistic child that doesn't get invited to birthday parties, it's heart-breaking...We did have one where it was a whole class that went and she said, why was I not invited? I spent the rest of the evening just in tears that night’ (Alice's parent).

Both educators and parents expressed their concerns that the demands of the classroom, combined with camouflaging both social and learning challenges, resulted in the girls underachieving. They attributed this to the girls being unable to fully access their learning, either because of non-attendance or because all their focus was targeted towards blending in:

‘I think she does find it stressful though, just trying to remember how to act and trying to fit in. She stays in the centre [resource base] a lot of her time in school, I know because they email me and that worries me as she is missing so much of her learning’ (Nia's parent).

Exhaustion associated with camouflaging was also identified by educators as having long-term detrimental consequences on the girls’ education, because they were too tired to learn: ‘I have her intervention group, period five on Friday, and nine times out of ten she's asleep...it's been such a long week for her (Miranda's educator).

Some parents expressed concern at the consequences of the conflict between camouflaging and the girls’ developing identity:

‘You're not being your proper self; I guess...It's a very conflicting thing...I think she's got a foot in each camp, because she's not in enough of the autism bubble to not care 100%...So she's different. She recognizes

that, can't do anything about that, but has a bit of awareness and I think it must be that conflict which is really hard'. (Helen's parent).

Some of the girls spoke of the confusion they felt when trying to change themselves so that they could fit in with their peers, explaining that they had to fully alter their personality and then found it difficult to change back:

'Really tiring...I feel like I can change back into myself so then I feel more comfortable... it depends if there's anywhere quiet...I stay outside and then what I do is, is that my whole entire characteristic just goes back into myself' (Holly).

**Researcher reflections from observations: Consequences of camouflaging on social interaction, learning and mental health.**

The immediate impacts of camouflaging and broader impacts of managing the school environment were observable within the mainstream lessons, especially where this involved large group work or class discussions. The girls' ability to manage the lesson expectations often decreased towards the end of the lesson and, during most of my observations, the girls left their lessons earlier than timetabled. During the journey back to the resource base, it was evident that most of the girls were overwhelmed: Liana walked silently, blanking discussion from her TA, and both Ivy and Miranda started crying within a couple of minutes of leaving mainstream.

I observed Alice sitting with friends in the mainstream café and then in the following lesson in the resource base. During lunch she sat in the busy, noisy hall, talking with peers and sharing music on her phone. Alice walked back to the resource base calmly, but within three minutes of sitting in class she became distressed by a background humming noise from a projector. Alice ran from the classroom and hid herself behind a computer cupboard. She spent nearly 40 minutes behind the cupboard, curled up in a ball and biting her hands. Alice missed all aspects of learning in the lesson, returning as her peers completed the task and tidied up.

## **Discussion**

### **5.1 Summary of chapter and main findings**

This thesis explored whether adolescent autistic girls, educated in specialised resource bases, use camouflaging strategies and if so, the motivations and consequences of this camouflaging. It also examined how these camouflaging strategies present in the different contexts of the resource base, mainstream school and home.

Research indicates that autistic women are particularly vulnerable to camouflaging their autism-based needs and attempting to blend in (Cage & Troxell-Whitman, 2019; Hull et al., 2017). Increasingly these camouflaging strategies are associated with significant negative impacts, including anxiety, depression, exhaustion and conflict of identity (Bargiela et al., 2016; Hull et al., 2017). The limited research examining camouflaging used by adolescent autistic girls presents similar patterns (Cook et al., 2017; Tierney et al., 2016). However, no previous research has examined whether autistic girls within a specialised resource base use camouflaging strategies and, if so, how these present, what motivates this behaviour, and what the consequences of camouflaging are.

This study utilised a multi-informant approach, examining girls', parents' and educators' experiences of camouflaging. Data were analysed thematically and four themes (with thirteen subthemes) were identified. The themes described a range of camouflaging strategies that were used to facilitate the girls' friendships, learning and attempts to blend in with the different contexts of the mainstream school and resource base. Camouflaging approaches were used inconsistently, and often ineffectively, throughout both contexts. A range of negative consequences were associated with camouflaging, which impacted on the girls' wellbeing, friendships and education.

This chapter will discuss the findings in relation to the two research questions, positioning these within the context of the wider literature. It will examine the different perspectives of each participant group and areas of convergence and disagreement between these. Following this, strengths and limitations will be



described before outlining avenues for future research. Finally, implications for EPs will be examined and linked to Bronfenbrenner's theoretical model (2005).

## **5.2 Research Question 1: Do autistic girls educated in resource bases use camouflaging strategies, and if so, how do these present in different contexts (within school settings and also at home)?**

Existing research examining camouflaging strategies used by adolescent autistic pupils has primarily focused around young people who attend mainstream schools and are identified to be within age-related expectations regarding IQ (Dean et al., 2017; Tierney et al., 2016). This choice of sample has been justified by the suggestion that pupils with learning challenges are less likely to have the cognitive skills required to camouflage their needs. The only research examining autistic girls' friendships and camouflaging according to their different school contexts (Cook et al., 2017), reported increased camouflaging in the mainstream compared to the girls in specialist schools. However, they did not examine the influence of the different school contexts, or the pupils' individual needs, on camouflaging.

A key aspect of the current study was to examine whether adolescent autistic girls, who attended a resource base, used camouflaging strategies. The specialist resource bases were chosen as an intermediary position between the mainstream and specialist provisions, with all the girls integrating into some mainstream lessons, and some of them integrating into unstructured social time. In line with previous research on autistic females who attended mainstream education (Bargiela et al., 2016; Tierney et al., 2016), many of the girls in the current study used camouflaging strategies in an attempt to blend in and hide their differences. These included self-developed and adult guided strategies, such as concealing interests that were not harmonious with those of their neurotypical peers.

A novel contribution of the current study, not reported in previous literature, was the identification of persistent inconsistencies that characterised the girls' camouflaging behaviours. This was due to the strategies used being inflexible and shallow, which made them vulnerable to breaking down, and many of the girls were aware that their efforts to camouflage had not led to success in being

accepted by their neurotypical peers. The social complexity of adolescence was identified as a significant factor in explaining why many of the simple, inflexible, camouflaging strategies described by the girls were inconsistent and often ineffectual. The challenges of adolescence, and the associated transition to secondary school, bring major unstated changes in social assumptions (Cridland et al., 2014; Gould & Ashton-Smith, 2011; Tierney et al., 2016).

Within the current study, the fragility of the girls' camouflaging was evident in both self-developed and adult-guided strategies. The girls self-developed approaches included mimicking peers' social actions and communication styles, without understanding the subtleties of the social interaction. All of the girls described using camouflaging strategies that overlapped with adult guided social skills, including making eye contact, providing scripted answers to 'small talk', and trying to look interested in other people's conversations. Where these strategies were specific and uncomplicated, many of the girls described using them successfully in different contexts, despite the discomfort that this caused. In contrast, parents and educators often reported that the girls did not show the flexibility to apply these strategies effectively to the changing social context. Livingston and Happé (2017) describe similar shallow camouflaging strategies as a means of allowing autistic individuals to navigate the world superficially, but also highlight that these strategies are fragile and are more likely to break down if the environment is challenging.

One camouflaging strategy, which all the girls reported using, was hiding interests that did not fit with the expectations of their neurotypical peers. Both parents and educators reported that the girls' interests were more in line with primary age girls, including role play with toys and collecting characters. However, the girls remained committed to their immature interests and often resolved this by revealing different interests in different contexts. Previous literature suggests that autistic girls' interests are usually aligned with gender expectations. These are often conveyed in socially appropriate ways that help them to blend in (McFayden et al., 2018). The current study also found that most of the girls' interests followed gender expectations, but these did not develop at the speed and sophistication of their neurotypical peers. This discrepancy between gender expectation, interests, and development in adolescence was

also described by Tierney et al. (2016) who highlighted the impact on friendships, contributing to the girls' social isolation.

Some of the parents and educators described more dynamic and complex strategies used by the girls, such as pre-planning scripts and memorising information to use in social situations. However, they noted that the girls would often use their learnt strategies in a fixed way, without adapting these to dynamic social contexts. This revealed their lack of social understanding and resulted in inconsistencies in their camouflaging strategies.

The parents' and educators' perspectives of the girls' camouflaging were closely aligned and they both identified a range of camouflaging strategies used by most of the girls within the school and home contexts. Their shared perspective decreased for the girls who presented with less sophisticated camouflaging strategies. Referencing these girls, a few parents expressed disbelief that their daughters were able to alter their behaviour, although they noted that they did not see their daughter's behaviour within school. In contrast, educators recognised the girls' attempts to camouflage, despite these being inconsistent and often ineffective. The different perspectives between educators and parents may provide context around the research by Cook et al. (2017), which reported that autistic girls attending specialist schools did not camouflage. This research examined the views of girls and their parents but did not include the perspective of the educators. This may suggest that the less sophisticated attempts to camouflage behaviour within specialist provisions are not recognised by parents, who do not observe this in school.

Most of the girls within the current study promoted aspects of their autism identity within school, especially within their resource base. Within the resource bases there was an agreed and informal social code of accepted behaviours, which often permitted the girls to externalise behaviours that were validated by challenges associated with their autism. This resulted in further inconsistencies in camouflaging, as many of the girls felt that their autism diagnoses gave them justification to present with some features linked to their autism, while attempting to conceal and camouflage others. The girls' willingness to reveal their diagnoses may be a result of the shared identity that the pupils had as part

of the resource base and the awareness that they all shared the same label. Some of the girls also promoted their autism identity within both mainstream and the resource base contexts. This contrasts with research by both Tierney et al. (2016) and Cook et al. (2017), which found that all the girls within mainstream schools were motivated to conceal their autism diagnoses. This difference in attempts to camouflage may be impacted by the girls in the resource base frequently transitioning between that context and the mainstream school, usually in the company of other resource base pupils and staff. This may reduce the relevance of the girls attempting to camouflage because their mainstream peers have an increased awareness of the girls' association with the resource base and their diagnoses.

A novel finding of the current study, which has not been found in previous research, was that all the girls were strongly motivated to camouflage their learning challenges. This was especially prevalent in the girls who had been identified with learning needs. They developed a range of approaches to avoid being identified as academically struggling; for example, they spent significant time on the presentation of their work, which kept them busy but they did not actually attempt the designated task. Previous research around camouflaging has focused on pupils attending mainstream education, and there is little literature that examines the interaction between camouflaging, autism and learning needs. Several studies suggest that autistic girls may avoid academic risk taking in order to reduce the chance of failure (Ashburner et al., 2010; Gould & Ashton-Smith, 2011). Moyse and Porter (2015) observed three autistic girls attending primary school and found similar camouflaging behaviours to disguise their academic uncertainty. They described this as a vicious circle, in which the girls' underachievement was often overlooked, as they appeared engaged and were not disruptive. The current study identified a similar circle of non-achievement, in which the girls' camouflaging of their learning challenges resulted in mainstream teachers being unaware of these needs. This missed learning meant that the girls got further behind and had to work even harder to camouflage their academic challenges. However, the impact of this was reduced because the girls were all closely supported by TAs. This relationship

appeared key for enabling and scaffolding the girls to engage with their learning, which meant that the girls were dependent upon adult support.

A unique aspect of this study was that it explored camouflaging behaviours by girls who attended a specialist resource base and integrated regularly from this into the mainstream school. A novel finding was that the girls camouflaging behaviours varied according to their school context. The girls, their parents and educators all identified that the girls showed more camouflaging behaviours in the mainstream context, whether this was formal lessons or unstructured social interaction. Parents and educators attributed this to the increased and dynamic social expectations of the mainstream environment, which they felt became more challenging as the girls progressed up the school (e.g., when attempting to integrate into mainstream GCSE option groups). Most parents and educators agreed that the girls had no requirement to camouflage within the resource base and that, within this context, they could be their true selves. The girls referred to the resource base as their preferred school environment; a place where they felt more relaxed. Despite this preference, most of the girls reported that they continued to use camouflaging strategies within the resource base. They did, however, describe adjusting the strategies to fit this different context.

As well as examining camouflaging within the context of mainstream classes and the resource base, the nature of the girls' camouflaging at home was considered. Previous studies have recognised that autistic girls' motivation to camouflage, and the way this presents, changes according to the demands of the context, with significant differences between home and school (Cook et al. 2017; Tierney et al. 2016). In line with this research, the current study supported the idea that the girls used less camouflaging strategies at home with their close family. Most of the girls stated that being at home allowed them to relax and be their 'true selves'.

### ***Summary***

Overall, it is evident that the girls used a range of camouflaging strategies to try to hide aspects of their autism. The inconsistencies and contradictions that characterised the girls' camouflaging is a novel contribution of this study, which describes the fragility of the camouflaging approaches used. A second unique

contribution focuses on the girls' attempts to camouflage their learning needs and avoid being identified as academically struggling. This resulted in limited awareness of their learning needs, and increasing academic challenges as the girls struggled to manage the learning demands.

Finally, no previous study has combined the multiple perspectives of autistic girls, their parents and educators to examine camouflaging across mainstream and resource base provisions. A further novel contribution of this study is the finding of variation between the groups' perceptions of camouflaging in different contexts. This highlights the value of collecting multiple perspectives to enable a clearer understanding of the camouflaging strategies that the girls are using.

### **5.3 Research Question 2: What are the motivations and consequences of using camouflaging strategies for autistic girls attending resource bases?**

Previous research has outlined two key areas of motivation for camouflaging: first, the desire to achieve internal goals, such as relationships; second, environmental demands informing how the individual interacts with the world (Hull et al., 2017). In line with this previous research, the current study identified motivations for the girls' camouflaging that were consistent with these internal and external areas. The girls were internally motivated to blend in with the different school contexts to avoid the negative consequences of being identified as different. All of the girls described having experienced verbal bullying and embarrassment from peers as a result of not conforming to expected behaviours.

The girls were also externally guided by their parents and educators to adjust aspects of their behaviour, particularly when interacting within the mainstream school. In places, this guidance falls within the overlap between social skills teaching and camouflaging, encouraging girls to use taught strategies to try to fit in. Some educators described attempts to camouflage the autism needs of all the resource base pupils by giving them similar guidance, irrespective of their individual understanding or desire to blend in. These environmental pressures to camouflage are grounded in the social expectation that autistic people need to adjust their behaviour to facilitate being accepted (Hull et al. 2017). These assumptions are often made by teachers or other significant people, who are

keen to reduce the negative interactions associated with being different (Bargiela et al., 2016).

Alongside the external (environment-based) guidance and feedback, the girls were internally motivated to camouflage their behaviours to facilitate desired relationships and support connections with peers. A novel contribution of the current study, which builds on previous literature examining autistic girls' experiences of friendships and camouflaging, was the identification of the social belonging challenges experienced by girls attending a resource base. All the girls reported a desire for friendships, and this motivated their attempts to camouflage their behaviour and conform to their neurotypical peers' expectations. Despite this, their friendships were characterised by challenges and repeated experiences of rejection and isolation. This resulted in the girls struggling to identify where they socially belonged, as their camouflaging attempts were not sophisticated enough to facilitate successful connections with their neurotypical female peers. This was compounded by the girls' determination to remove themselves from the available peer interactions within the resource base, because they identified that these associations reduced the effectiveness of their attempts to blend in with their mainstream peers. When the girls did attempt to build relationships within the resource base, they found that the combination of their own and their peers' social communication needs resulted in frequent challenges. Cook et al. (2017) reported similar conflicts within autistic girls' friendships in specialist schools, highlighting that the combined social communication profiles of need resulted in volatile and unstable relationships.

The close association between desire for friendships and camouflaging has been established in previous literature considering adolescence and adulthood (Cage & Troxell-Whitman, 2019; Cook et al., 2017; Hull et al., 2017; Tierney et al., 2016). Research suggests that autistic girls' desire for friendship is similar to their neurotypical peers (Head et al., 2014; Sedgewick et al., 2016), but they experience increased peer rejection, which is attributed to their autism-based differences. This peer rejection motivates many autistic girls to attempt to camouflage behaviours that do not conform to the expectations of their peers (Kreiser & White, 2014; Tierney et al., 2016).

Within the current study, the girls' relationship challenges intensified during adolescence, as the transition to secondary education coincided with increasingly complex and subtle social interactions between neurotypical girls. Despite attempts to fit in, autistic girls can struggle to successfully replicate the nuanced distinctions in behaviour (Cook et al., 2017; Tierney et al., 2016). Even when these challenges are not identified by adults, autistic girls are often identified by their neurotypical peers, resulting in rejection and social isolation (Bargiela et al., 2016; Dean et al., 2017; Kreiser & White, 2014).

Within the current study, these friendship challenges left the girls socially isolated and frustrated; surrounded by boys and trying to identify a social group to belong to. The girls managed this by seeking alternative relationships to increase their sense of belonging. The most successful friendships were reported to be with mainstream pupils identified with SEN. The girls often described these friendships as positive, expressing their preference for the pupils being based within mainstream. Parents and educators were also positive about the girls' successful relationships with mainstream SEN pupils. Similar patterns of SEN friendship for autistic girls attending mainstream have indicated that these relationships can enable the girls to feel accepted, allowing them to reduce their camouflaging strategies (Cook et al., 2017; Tierney et al., 2016).

The costs of camouflaging have been well established throughout both the adult and adolescent literature, with the most consistent and prevalent consequence outlined as exhaustion (Cage & Troxell-Whitman, 2019; Cook et al., 2017; Hull et al., 2017; Tierney et al., 2016). Similar camouflaging consequences were identified in the current study, alongside the novel finding that the negative consequences experienced by the girls were reported irrespective of their camouflaging success. One of the costs that the girls, parents and educators described was the immense exhaustion experienced by the girls following attempts to camouflage. This was generally revealed soon after the girls left the mainstream environment, when the immediate social demands reduced. In the resource base, having a meltdown was accepted as a part of autism behaviour, and the girls' exhaustion was often demonstrated externally, through emotional outbursts and visible distress. At the same time, most of the girls described how



they attempted to continue camouflaging in the resource base, only revealing their true selves at home. Several parents highlighted that the girls transition from school to home was characterised by them being exhausted, emotional and upset.

Alongside their exhaustion, most of the girls were reported to be highly anxious within the school environment. The significant impact that managing the expectations of mainstream school has on autistic girls' mental health, has been outlined by Tierney et al. (2016), who describe the environment as incommensurate. Within the current study, the girls' anxiety around fitting in and their repeated experiences of peer rejection impacted on their willingness to attend to the mainstream requirements of school. Several of the girls expressed doubt around whether their camouflaging attempts were successful, and described their anxiety about these failing or being revealed. Throughout the autistic adult literature, anxiety associated with the success of camouflaging has been recognised as contributing to the negative consequences of camouflaging (Cage & Troxell-Whitman, 2019; Hull et al., 2017). Within the current study, it is important to recognise that the negative consequences of camouflaging were present irrespective of the sophistication and success of the girls' camouflaging. At times, this resulted in the girls' camouflaging attempts being misunderstood, meaning they missed out on appropriate and targeted support.

In addition to the immediate impacts of camouflaging, parents and educators identified longer term consequences that affected the girls' social interaction. Previous research suggests that camouflaging can impact on autistic women's identity, as they spend so much time hiding aspects of themselves and adjusting their behaviour to fit in (Bargiela et al., 2016; Hull et al., 2017). The interaction between camouflaging and identity has not been fully explored for adolescent autistic girls, yet this stage of development is recognised as an important time for development of self (Blakemore, 2018). Within this vulnerable age group, research by Tierney et al. (2016) indicated that camouflaging can impact on identity development, contributing to a decline in mental health. In the current study, parents expressed their concerns around the impact of camouflaging on their daughter's identity. They detailed the conflict that the girls faced by not camouflaging successfully enough to build a 'mainstream' identity, alongside

not fitting within the stereotypical expectations of autism (typically based on the presentation of autism in men and boys).

A novel contribution of the current study, not previously reported, was the impact that camouflaging had on the girls' learning. The combination of the girls' attempts to camouflage their social and learning needs, alongside the exhaustion and anxiety associated with this, resulted in long-term and negative impacts on learning. The girls often avoided learning situations or focused on camouflaging their challenges, resulting in missed opportunities and underachievement. Despite the girls' identified SEN, they reported that their mainstream teachers appeared unaware of their struggles. This lack of awareness has been previously described in mainstream settings, and has been attributed to the girls' internalised and superficially on-task behaviours, which resulted in teachers overlooking their subtle needs (Bargiela et al., 2016).

A further consequence to camouflaging, which was outlined by parents within the current study, was the delay in accessing appropriate support for the girls. Limitations to professionals' awareness of camouflaging were identified by all parents as a key factor underpinning the delay in diagnosis of their daughters. Parents identified that, despite communicating concerns to professionals about their daughters' development, diagnosis and support were delayed due to the professionals' disbelief that the needs were autism-based. Similar reports of limited awareness are evident throughout the literature, fuelled by contradictions to the established stereotypes of autism, alongside gendered expectations of behaviour (Bargiela et al., 2016; Cook et al., 2017; Hull et al., 2017; Tierney et al., 2016).

Many of the difficulties experienced by autistic girls intensified due to the increased social complexity of adolescence, often compounded by the lack of an autism diagnosis, which resulted in girls being mislabelled (Bargiela et al., 2016; Cook et al., 2017; Tierney et al., 2016). Within the current study, several parents outlined their concerns regarding the transition to secondary school without accurate identification of their daughters' needs. The difficulties of this school transition have been recognised throughout research as being especially challenging for pupils with autism, impacted by the increased demands in social

interaction, flexibility and self-regulation (Mandy et al., 2015b; Tobin et al., 2012). These are areas of challenge for many pupils with autism and, within the current study, several parents emphasised that the missed opportunities for support within primary school resulted in their daughters' distress being increasingly mislabelled as poor behaviour.

### ***Summary***

In summary, the girls experienced significant negative consequences due to their camouflaging. They experienced overwhelming exhaustion, anxiety and emotional distress, as well as uncertainty around their identity. A new contribution to camouflaging research is that these negative consequences were experienced irrespective of the girls' sophistication or success in camouflaging. These consequences also impacted the girls' ability to access many aspects of the social and learning environment. This is the first study to explore the interaction between camouflaging and learning in resource bases, and the findings highlight the negative impacts that camouflaging had on the girls' learning and achievement.

In addition to the impacts on learning, the girls experienced significant challenges fitting into their school context. These challenges, and the impact of their camouflaging attempts, resulted in them being isolated between the resource base and mainstream. These consequences were further compounded by the girls' recognition that their camouflaging was often unsuccessful, resulting in long-term social isolation and rejection from their neurotypical female peers. The significant and detrimental consequences associated with the girls' attempts to camouflage emphasise the importance of developing understanding of camouflaging across the full profile of the autism spectrum. It is essential to increase awareness and consider specific support that is individualised and targeted towards the girls' profile of needs. This should aim to reduce the girls' requirement to camouflage, and increase awareness of the impacts of their attempts, so their subsequent behaviour can be understood and supported.

## **5.4 Strengths and limitations of the current study**

### ***Strengths***

The multi-informant approach adopted in this study was a significant strength. It allowed exploration of the camouflaging used by autistic girls from a range of different perspectives. The inclusion of educators' voices provided insight into the camouflaging experiences of the girls across the different school contexts, which had several benefits. First, that the girls' camouflaging attempts were recognised in school, where parents were often unaware that these strategies were being used. Second, these camouflaging strategies were considered alongside the contextual factors, such as the impact of the mainstream and resource base environments. Third, that the educators were able to position their discussions within the broader picture of camouflaging in school, meaning that the findings reflected the experiences of other autistic girls within the resource bases.

Including parents' perspectives within this study was essential for providing a deeper understanding of the girls' camouflaging, alongside the longer-term impacts of this on the girls' development and access to support. Both educator and parent views were triangulated with the unique insights that the girls shared. These highlighted aspects of camouflaging that were not identified by the other informant groups, such as their continued camouflaging in all school contexts, even when the social demands were reduced.

Another strength of this study was the consideration of the girls' needs and how they could be supported to participate and meaningfully share their views. The experiences of individuals with autism, particularly those who have co-existing learning needs, are under-represented in autism research (Hill et al., 2016). Meeting with the girls prior to the interviews, answering questions and sharing the visual consent form was important for building rapport. Using inclusive methodologies, such as the visual scaling activity, was effective for increasing the girls' understanding, providing a structure to our discussions and reducing the social demands of the interview. Overall, the richness of data gathered for each girl, parent and educator provided the basis for a comprehensive examination of camouflaging used by the girls in this study.

The opportunity to examine camouflaging within different school contexts was an additional strength, bringing a novel contribution to camouflaging research. Identifying pupils who integrate into mainstream, alongside receiving support in a specialised resource base, enabled consideration of the role that school context has on camouflaging. This was enhanced by the specific age range of the girls, who all attended secondary education and were therefore in the midst of adolescence. This stage of development has consistently been identified as a critical stage for autistic girls (Sproston et al., 2017; Tierney et al., 2016), yet current research examining camouflaging has predominantly focused on adults, where camouflaging strategies are more established. Focusing on adolescence was therefore important for examining the development of early camouflaging strategies.

### ***Limitations***

A number of limitations within the current study require consideration. In line with similar qualitative research (Cook et al., 2017; Sproston et al., 2017; Tierney et al., 2016), this study included a relatively small sample size of eight autistic girls, their parents and educators. This small number of participants allowed for an in-depth and rich exploration of the girls' camouflaging, but the generalisability of their experiences to other autistic girls should be carefully considered. This limitation was, however, reduced by including three different resource bases across three different local authorities. It is also important to note that similar experiences of camouflaging and associated consequences have been evidenced in previous research (Bargiela et al., 2016; Hull et al., 2017; Tierney et al., 2016), increasing confidence in the generalisability of the findings.

In addition, due to the impact of gender expectations and friendships, alongside differences in the quantity and presentations of camouflaging behaviours, this study focused exclusively on adolescent autistic girls. This approach was important for increasing homogeneity within the group, yet inclusion of autistic boys and neurotypical children would have enabled greater clarity around whether the experiences were specific to autistic girls. Within the wider research literature, a study by Sedgewick et al. (2019) compared friendships of autistic

and neurotypical pupils and demonstrated how camouflaging behaviours could be examined in subsequent research for a broader range of autistic pupils across different school contexts.

A more specific limitation was associated with the sensitivity of the SCQ (Rutter et al., 2003), used to provide a measure of autism symptomatology. Despite all the girls having previous clinical diagnoses of autism, several did not score above the cut off indicative of autism (i.e., a score of 15). This provides an interesting insight into the challenges of identifying autistic girls and the role of camouflaging in hiding their autism-based challenges. During completion of the SCQ, several parents highlighted that the superficial and binary nature of the questionnaire was not sensitive enough to differentiate between the social communication challenges their daughters presented with. For example, they noted how it asked whether their daughter had a friend, rather than the quality and success of that friendship. The SCQ was standardised on 200 individuals, yet the authors of the measure provided no information regarding the gender ratio of the standardisation. They do, however, recognise that the SCQ may be limited in sensitively screening for 'individuals with mild autism of normal non-verbal intelligence' (Berument et al., 1999) (p450). The challenges of identifying autism in females, using standardised approaches such as the ADI-R (Lord et al., 1994), which the SCQ was derived from, have been clearly described throughout previous research (Duvekot et al., 2017; Dworzynski et al., 2012).

A further limitation involved the structured observations used within the study. The observation pilot highlighted the significant variation between learning contexts. This resulted in observational data being collected to provide broad insights into the girls' camouflaging within different school contexts, rather than to provide measurable comparisons of camouflaging across contexts. The single observations can only offer a snapshot of the girls' camouflaging, especially as they were all conducted over a few days. Reliability would have been increased by completing repeated observations over a longer time frame, enabling comparison between the different behaviours in each context. Nevertheless, using observations to provide context to the girls' behaviours, as well as different school environments, was important for strengthening the

validity of the different narratives and providing a richer understanding of their camouflaging in context.

Finally, there are challenges inherent with successfully eliciting the perspectives of children with autism. Beresford et al. (2004) outlines the limitations of using semi-structured interviews with autistic children, emphasising that their social communication difficulties and significant levels of social anxiety can undermine this approach. These concerns may be further compounded by the identified learning needs of the girls in the current study. Furthermore, the nature of camouflaging means that it is not possible to be sure whether the girls were camouflaging during their interviews and, if so, the influence this had on their contribution. Despite these concerns, a fundamental aim of this research was to elicit the girls' voices around their camouflaging experiences. The girls all chose to participate in the interviews, and although there was variation in the amount of information they shared, they were all able to express their views about camouflaging, friendships and school. These narratives were consistent with the other information gathered, and triangulating the girls' responses with those of their parents and educators provided a coherent understanding of the camouflaging behaviours within the various contexts.

## **5.5 Future research**

The findings from this thesis have informed at least four potential areas for future research. First, as noted in the limitation section, although this study provides insight into the camouflaging strategies used by autistic girls within specialist school provisions, this remains an under researched area. In addition, this research specifically considered the camouflaging experiences of girls. Research indicates that while camouflaging may be different for each gender, males are also likely to camouflage (Hull et al. 2017). Therefore, further research should examine how camouflaging skills develop, including for adolescent autistic boys who have co-occurring learning needs. These insights will be important for providing earlier identification and appropriate support for autistic pupils – of all genders – prior to the challenging transition into adolescence.

Second, although the girls' experiences indicated an overlap between formal social skills learning inherent within specialist resource bases (such as turn-taking in conversation and maintaining eye contact) and the use of camouflaging strategies, this overlap was not directly examined within this study. Future research should explore the interaction between taught social skills interventions and camouflaging strategies, considering the extent to which camouflaging is motivated by the formal and informal social skills guidance.

Third, future research should focus on examining the specific features of current or new interventions that are effective for supporting adolescent autistic girls. There are recognised differences in social interaction, friendships and interests, alongside increased likelihood of internalised behaviours and camouflaging, for autistic girls. It therefore seems reasonable to conclude that they may require a differentiated approach to intervention. A number of studies have reported that, despite relative strengths during earlier development, autistic females may experience increased social communication challenges during adolescence compared to their male autistic peers (Jamison & Schuttler, 2017; Kirkovski et al., 2013; Koenig & Tsatsanis, 2005). These increased difficulties are attributed to the double impact of core social communication needs connected to the girls' autism, alongside the rapid increase in social complexity amongst their neurotypical female peers. An individualised approach towards intervention may be informed by a broader risk and resiliency framework, which supports autistic girls to develop an understanding of their individual profile of strengths and needs, alongside considering what social skills support will promote social and emotional wellbeing.

Finally, this research found broader narratives around inclusion for the girls when integrating into the mainstream school, highlighting the impact that wider inclusion and acceptance has on camouflaging. Therefore, future research should include consideration of good practice, which facilitates positive inclusion for pupils attending specialist autism resource bases within mainstream secondary schools. This research would provide a grounding for systemic change within schools, that could support the girls by reducing their requirement for camouflaging and the negative consequences associated with this.



## **5.6 Implications for EP practice**

This study uses Bronfenbrenner's (2005) bio-ecological model as a framework for examining the different factors that contribute to the autistic girls' experiences of camouflaging. I will now review the findings in relation to Bronfenbrenner's framework, before outlining how these relate to EP practice.

### ***Link to Bronfenbrenner's (2005) bio-ecological model***

This study was cross-sectional, meaning that exploration of the broader patterns underpinning the progression of camouflaging skills are limited. However, despite the girls being at different stages of their schooling, several patterns were identified across the narratives that support understanding of the impact of time on camouflaging for this group. The study was focused during a critical stage of the girls' development, where the complexity of adolescence and school transition are recognised to present challenges to autistic girls' ability to access the social demands of school. The narratives of the girls, parents and educators all reflected the impact that the increasing social demands had on the requirement for camouflaging behaviour. Parents highlighted the steep trajectory of expected social development, which was considered increasingly unattainable for their daughters. This widening gap was recognised by the girls, who attempted to camouflage but often found that their attempts were not sophisticated enough to be successful. Parents also described similar difficulties in the delay before their daughters received an autism diagnosis, with many identifying that they had reached crisis before accessing appropriate support.

A focus of this study has been to examine camouflaging across different contexts, especially within the girls' microsystem and mesosystem. In line with previous research, this study showed that the girls felt a reduced need to camouflage at home, around close family. Within school, the combined narratives all highlighted that the girls felt more demand to camouflage within the mainstream environment. The perspectives differed around the camouflaging demands within the resource base, where educators felt the girls were able to stop camouflaging and be themselves. In contrast, the girls

reported that they felt compelled to continue camouflaging, however they did note that the resource base environment met their demands more successfully.

The impacts of accessing support services outside of school formed an important context within the exosystem for understanding the pressures that contributed to the requirement of the girls to camouflage. Most of the parents discussed the challenges of being referred to CAMHS and the limited specialist input available to support their daughters managing their autism and associated mental health needs, such as anxiety. These challenges sit within the broader macro context that underpins camouflaging. Several of the parents and educators highlighted the societal expectation that the girls should change their behaviour to 'fit in', rather than society becoming more aware and accepting of autistic difference. These expectations inform social skills teaching within school and have been identified as a challenge to reducing the necessity of camouflaging (Hull et al., 2017).

Camouflaging is a social construct, therefore an important aspect of applying Bronfenbrenner's (2005) framework was the focus on interactions between the girls and their context. These proximal processes provide an insightful perspective through which to examine the girls camouflaging, including their motivations and the associated consequences. All the girls desired to be accepted and included by their neurotypical female peers and this was identified as a primary motivator for their camouflaging. These desired friendships were often in direct contrast to the girls' experiences of bullying, peer rejection and isolation, which had increased throughout their primary schooling.

The challenges of these relationships, and the girls associated desire to camouflage their behaviours, impacted on the girls' other relationships. Their attempts to find positive social interaction in school resulted in them seeking safe and controllable relationships with older pupils or TAs, as well as younger children and those outside the resource base. The girls' motivation to camouflage resulted in them rejecting their associations with the resource base pupils who were not camouflaging, leaving the girls without many of the protective social aspects of the resource base.

### ***Recommendations for EP practice***

This research has important implications for EPs, highlighting the need for increased awareness around the camouflaging strategies used by autistic girls and the wide-reaching impacts of these. EPs have a unique and distinct role: working alongside the various systems surrounding the child, while being able to take an external perspective (Beaver, 2011). Bronfenbrenner's ecological model provides a practical framework for guiding EP practice, enabling consideration of implications for each aspect of the model. The systems and factors interact with each other, so the recommendations are not rigidly fixed within specific aspects of Bronfenbrenner's framework. EP implications are outlined in Figure 11 and subsequently discussed in further detail.

PPCT system	Recommendations
<b>Time:</b>  Chronosystem	<ul style="list-style-type: none"> <li>• Raise awareness with key stakeholders around the increased vulnerability of autistic girls' social interaction as they move into adolescence.</li> </ul>
<b>Context:</b>  Macrosystem,  Exosystem,  Mesosystem,  Microsystem,	<ul style="list-style-type: none"> <li>• Engage in strategic planning with school staff and wider systems around supporting all pupils and staff to embrace difference and pro-actively enable inclusion throughout their schools.</li> <li>• Reduce stigma by promoting strengths associated with autism and positive role models.</li> <li>• Facilitate a collaborative approach for schools to access ongoing support for mental health, e.g., Child and Adolescent Mental Health Services (CAMHS).</li> <li>• Support primary schools to increase awareness of subtle presentations of autism in girls, enabling earlier identification and support.</li> <li>• Signpost families to local and national support services.</li> <li>• Increase teacher awareness and confidence in supporting autistic pupils needs in mainstream lessons.</li> <li>• Conduct further research and develop the evidence-base examining the social environments that promote positive social interactions within peer groups that the girls want to participate in. This knowledge can be used to help resource base and mainstream staff to facilitate the girls' inclusion, develop their friendships and sense of belonging, and the protective features associated with this.</li> </ul>
<b>Proximal Processes:</b>	<ul style="list-style-type: none"> <li>• Increase awareness for all school staff of the girls' attempts to camouflage both their autism and any learning needs, as well as the impact this has on their learning, social interaction, mental health. This should include embedding collaborative Person-Centred Planning approaches that explore the subtle presentation of camouflaging strategies, alongside recognition of the impacts of camouflaging, which are present irrespective of how 'successful' the camouflaging is.</li> <li>• Support schools to consider the interaction between teaching social skills and the impact of camouflaging. This should be supported by an individualised approach, exploring each girl's views and hopes associated with camouflaging, alongside psychoeducation teaching strategies to manage impacts on mental health.</li> </ul>
<b>Person:</b>  Demand, resource and force characteristics	<ul style="list-style-type: none"> <li>• Use observation and assessment to inform consultation with parents and school staff, to develop increased understanding of individualised impact of autism and associated needs, as well as attempts to camouflage them. Support key adults and the young person to co-construct an individual evidence-informed intervention approach, focused around developing the desired skills while managing any negative impacts to these.</li> <li>• Support schools to develop tools that seek out and use parent and pupil views, to support early identification of concerns and understanding of needs across different contexts.</li> </ul>

Figure 11. EP implications

A number of the outlined EP implications warrant further discussion. First, this study highlights the missed opportunities for early identification and support for autistic girls, due to camouflaging of their autism needs. Lack of awareness of the subtle presentation of autism, often disguised in school by the girls' camouflaging strategies, resulted in parental concerns being missed and delays in accessing appropriate support. A key implication for EPs is to provide training for other EPs and professionals, aiming to develop professional awareness and knowledge of autistic girls' camouflaging. This should be supported by EPs' commitment to developing the knowledge base regarding camouflaging and its impacts on autistic girls' experiences of all aspects of school, including social interaction and learning.

An important role for EPs is developing school staff awareness of vulnerable groups of pupils, such as autistic girls, through training and signposting. EPs can support schools to consider whether a pupil identified to be using camouflaging strategies needs more specialist intervention. EP awareness building should be targeted towards both primary and secondary school staff, aiming to increase their understanding of the camouflaging strategies that may be used by girls to hide social communication needs. EPs can also provide a positive bridge, through shared consultations, to support recognition of the different presentations of autistic girls camouflaging between home and school settings. Earlier identification of the girls' camouflaged needs, and access to appropriate support prior to transition to secondary school is important. Within this study, parents described their daughters' adolescence being characterised by the rapid increase of social complexity, where their camouflaging strategies became less effective for fitting in. In addition, school transitions are recognised as especially challenging for many autistic pupils (Dann, 2011; Neal & Frederickson, 2016), due to their intolerance to uncertainty and change. It is therefore essential that autistic girls are guided through this period of development with a carefully planned transition and ongoing monitoring of their inclusion, friendships and sense of belonging at school.

Second, EPs need to raise awareness in schools with resource bases, around the presentation of camouflaging for their autistic girls. This should include recognition that girls may be motivated to camouflage both their autism and

learning needs. An essential aspect of this awareness raising should focus on the negative impacts that camouflaging can have, even when the attempts to blend in are ineffective and inconsistent. Within this study, these attempts to camouflage were less recognised by parents but they had significant impacts on the girls' ability to participate in all aspects of school. In addition, the camouflaging demands were reduced but not eliminated within the resource base, meaning that many of the girls presented with significant emotional distress at home.

Alongside developing awareness of the presentation of camouflaging strategies and understanding of the associated consequences, there are two main strands underpinning implications for EPs. The first of these focuses around interventions and support targeted towards autistic girls, which aim to reduce the negative consequences associated with camouflaging. The second strand is informed by the Social Model of Disability, which highlights how, alongside physical barriers, society plays an important role in constructing narratives of difference (Oliver, 1986). This perspective recognises that increased acceptance of difference, and commitment to embedding this throughout the school context (and wider contexts), is essential for reducing the girls' desire to camouflage.

At an individual level, EPs need to consider the intervention package that is recommended to schools when supporting autistic girls. Current interventions include social skills teaching, which focus on the autistic individual adjusting their social communication to fit within the cultural expectations. In line with many aspects of autism research, the evidence base for social skills interventions have primarily focused on groups of autistic boys (Jamison & Schuttler, 2017). The current study highlights the overlap between social skills interventions and the girls' attempts to camouflage. This indicates a challenging dichotomy between the interventions evidenced to support autistic individuals to access school successfully and their broader impact on girls' camouflaging attempts. It is probable that using social skills programmes developed for boys, alongside the increased social motivation often experienced by autistic girls, results in overwhelming demands on them. This may be compounded by their social isolation and rejection by their neurotypical female peers.

Consideration of an effective social skills based intervention for autistic girls needs to be informed by an insightful exploration of their individual needs. A strength of the EP role is using consultation models to work collaboratively with the child, key school staff, and families to gather information, hypothesise and agree outcomes (Beaver, 2011; Nolan & Moreland, 2014; Wagner, 2000). Using a consultation framework to consider the specific and individual needs of autistic girls may be enhanced by the use of person-centred planning approaches. The SEND Code of Practice (2015b) highlights the importance of CYP with additional needs, and their families, being meaningfully engaged in planning how to meet their needs. Using person-centred planning approaches, such as Planning Alternative Tomorrows with Hope (PATH) (Pearpoint et al., 1993), could facilitate autistic girls to take control of the social skills they would like to prioritise, according to their aspirations for the future. This approach is especially key considering the girls' adolescence and developing sense of self. Research indicates that autistic adolescents often have limited involvement in the decisions regarding the skills to be targeted by intervention (Jamison & Schuttler, 2017; McDonald & Machalicek, 2013). Prioritising their involvement is a key factor in promoting their self-determination and independence, increasing the efficacy of the skills being learnt.

Alongside enabling understanding of the girls' individual profile and aspirations for the future, EPs can support the development of a psychosocial curriculum for autistic girls. This would promote the girls' social communication and emotional literacy, as well as increasing their resiliency and awareness of mental health and wellbeing. Jamison and Schuttler (2017) suggest that social skills intervention, targeted towards adolescent autistic girls, requires increased focus around the complex conversation skills and relationships that characterise adolescent female interactions. Within the current study, many of the girls reported enjoyment of mainstream drama groups and sought out opportunities to explore different identities. Activities underpinned by role play may be effective for developing the girls' understanding and generalisation of the nuanced and subtle social interactions of their neurotypical female peers.

This study highlights that girls' camouflaging attempts may be indirectly impacted by both formal and informal social skills intervention and feedback.

The negative consequences of camouflaging provide insight into autistic girls increased vulnerability to experiencing mental health difficulties, such as anxiety and depression (Jamison & Schuttler, 2017). An important aspect of intervention for autistic girls needs to focus around developing their mental health and wellbeing, through psychoeducation and, where needed, access to therapeutic approaches. EPs are well placed to support delivery of these interventions, due to their unique role between education and mental health (Atkinson et al., 2013; Squires, 2010). Each girl is likely to require an individualised programme of support, informed by shared discussions recognising their aspirations and how they experience the demands within the school environment. EPs can support school staff to recognise early signs of mental health concerns, enabling them to offer evidence-informed interventions to promote positive mental health at an early stage. This may form the basis of broader support for the girls to consider their diagnosis and identity, increase awareness of their mental health and wellbeing, and discuss camouflaging strategies and implications.

A further implication of this research focuses around consideration of whether attempts to meet the autistic girls' social communication needs results in them being socially excluded twice. The girls attending the resource base are separated from their mainstream peers, reducing their ability to make positive social connections with this group. However, the resource bases have far higher numbers of males, many of whom have more significant needs associated with their autism, resulting in the girls having no clear peer group to interact with. The impact of this double exclusion leaves the girls isolated and potentially increases their desire to camouflage in their attempts to disassociate themselves socially from the resource base. There is an important role for EPs in supporting the resource base staff to discuss and facilitate the girls' inclusion across the wider school. EPs should promote the importance of the girls having access to mainstream structured activities alongside other pupils, including those with SEN. These activities should be interest based, such as drama and music, led by adults who are attuned to the girls' strengths and needs, and are skilled at supporting these.



At a broader level EPs have a key role increasing awareness and promoting inclusion at a systemic level throughout the school and wider communities. Camouflaging is underpinned by the interaction between the autistic person's individual profile and the demands of the environment. To date, evidence-based interventions aiming to reduce this conflict have primarily focused around the autistic individual changing their behaviour to fit into their environment (Mandy, 2019; Wong et al., 2015). However, the research examining camouflaging is consistent in highlighting the significant negative consequences that are associated with these camouflaging behaviours (Hull et al. 2017). It is therefore essential that EPs work systemically in collaboration with schools and other professionals, to promote wider levels of change, to support the inclusion of autistic girls. This work should aim to develop a culture within schools that celebrates diversity and explicitly promotes acceptance of difference. This will reduce the requirement for the autistic girls to camouflage, in turn reducing the negative consequences associated with camouflaging and increase their ability to flourish within school.

## References

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders (5th edition)*. APA.
- Ary, D. (2014). *Introduction to research in education (9th ed.)*. Wadsworth Cengage Learning.
- Ashburner, J., Ziviani, J., & Rodger, S. (2010). Surviving in the mainstream: Capacity of children with autism spectrum disorders to perform academically and regulate their emotions and behaviour at school. *Research in Autism Spectrum Disorders*, 4(1), 18–27. <https://doi.org/10.1016/j.rasd.2009.07.002>
- Asperger, H. (1944). *Die Autistische Psychopathen im Kindesalter*. 117, 76–136.
- Atkinson, C., Squires, G., Bragg, J., Wasilewski, D., & Muscutt, J. (2013). Effective delivery of therapeutic interventions: Findings from four site visits. *Educational Psychology in Practice*, 29(1), 54–68. <https://doi.org/10.1080/02667363.2012.748650>
- Attwood, T. (2006). *Asperger's and Girls: World-renowned Experts Join Those with Asperger's Syndrome to Resolve Issues that Girls and Women Face Every Day!* Future Horizons.
- Attwood, T. (2007). *The complete guide to Asperger's syndrome*. Jessica Kingsley.
- Aukett, R., Ritchie, J., & Mill, K. (1988). Gender differences in friendship patterns. *Sex Roles*, 19(1), 57–66.
- Backer van Ommeren, T., Koot, H. M., Scheeren, A. M., & Begeer, S. (2017). Sex differences in the reciprocal behaviour of children with autism. *Autism*, 21(6), 795–803. <https://doi.org/10.1177/1362361316669622>
- Baird, G., Simonoff, E., Pickles, A., Chandler, S., Loucas, T., Meldrum, D., & Charman, T. (2006). Prevalence of disorders of the autism spectrum in a population cohort of children in South Thames: The Special Needs and Autism Project (SNAP). *The Lancet*, 368(9531), 210–215. [https://doi.org/10.1016/S0140-6736\(06\)69041-7](https://doi.org/10.1016/S0140-6736(06)69041-7)
- Bargiela, S., Steward, R., & Mandy, W. (2016). The Experiences of Late-diagnosed Women with Autism Spectrum Conditions: An Investigation of the Female Autism Phenotype.

*Journal of Autism and Developmental Disorders*, 46(10), 3281–3294.

<https://doi.org/10.1007/s10803-016-2872-8>

Baron-Cohen, S., Leslie, A., & Frith, U. (1985). Does the autistic child have a “theory of mind”? *Cognition*, 21, 37–46.

Bauminger, N., Shulman, C., & Agam, G. (2004). The Link Between Perceptions of Self and of Social Relationships in High-Functioning Children with Autism. *Journal of Developmental and Physical Disabilities*, 16(2), 193–214.

<https://doi.org/10.1023/B:JODD.0000026616.24896.c8>

Bauminger, N., Solomon, M., Aviezer, A., Heung, K., Gazit, L., Brown, J., & Rogers, S. J. (2008). Children with Autism and Their Friends: A Multidimensional Study of Friendship in High-Functioning Autism Spectrum Disorder. *Journal of Abnormal Child Psychology*, 36(2), 135–150. <https://doi.org/10.1007/s10802-007-9156-x>

Beaver, R. (2011). *Educational psychology casework: A practice guide* (2nd ed.). Jessica Kingsley, Jessica Kingsley Publishers.

Begeer, S., Mandell, D., Wijnker-Holmes, B., Venderbosch, S., Rem, D., Stekelenburg, F., & Koot, H. M. (2013). Sex Differences in the Timing of Identification Among Children and Adults with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*, 43(5), 1151–1156. <https://doi.org/10.1007/s10803-012-1656-z>

Beggiato, A., Peyre, H., Maruani, A., Scheid, I., Rastam, M., Amsellem, F., Gillberg, C. I., Leboyer, M., Bourgeron, T., Gillberg, C., & Delorme, R. (2017). Gender differences in autism spectrum disorders: Divergence among specific core symptoms: Gender differences in ASD. *Autism Research*, 10(4), 680–689.

<https://doi.org/10.1002/aur.1715>

Bellini, S., & Akullian, J. (2007). A meta-analysis of video modelling and video self-modelling interventions for children and adolescents for children and adolescents with autism spectrum disorder. *Exceptional Children*, 73(3), 264–287.

- Beresford, B., Tozer, R., Rabiee, P., & Sloper, P. (2004). Developing an approach to involving children with autistic spectrum disorder in a social care research project. *British Journal of Learning Disabilities*, 32, 180–185.
- Berument, S. K., Rutter, M., Lord, C., Pickles, A., & Bailey, A. (1999). Autism screening questionnaire: Diagnostic validity. *British Journal of Psychiatry*, 175(5), 444–451.  
<https://doi.org/10.1192/bjp.175.5.444>
- Bevan, R. (2017). *Gender identity and children with Autism Spectrum Condition. The association for Child and Adolescent Mental Health*. Retrieved from <https://www.acamh.org/research-digests/gender-identity-children-autism-spectrum-disorder>.
- Blakemore, S. (2018). *Inventing Ourselves: The Secret Life of the Teenage Brain*. Doubleday.
- Blatchford, P. (2003). A systematic observational study of teachers' and pupils' behaviour in large and small classes. *Learning and Instruction*, 13(6), 569–595.  
[https://doi.org/10.1016/S0959-4752\(02\)00043-9](https://doi.org/10.1016/S0959-4752(02)00043-9)
- Blumberg, S. J., Zablotsky, B., Avila, R. M., Colpe, L. J., Pringle, B. A., & Kogan, M. D. (2016). Diagnosis lost: Differences between children who had and who currently have an autism spectrum disorder diagnosis. *Autism*, 20(7), 783–795.  
<https://doi.org/10.1177/1362361315607724>
- Bond, C., & Hebron, J. (2016). Developing mainstream resource provision for pupils with autism spectrum disorder: Staff perceptions and satisfaction. *European Journal of Special Needs Education*, 31(2), 250–263.  
<https://doi.org/10.1080/08856257.2016.1141543>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. SAGE.

British Psychological Society. (2014). *Code of Ethics and Conduct*. British Psychological Society.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.

Bronfenbrenner, U. (1989). Ecological systems theory. *Annals of Child Development*, 6, 187–249.

Bronfenbrenner, U. (2005). *Making Human Beings Human: Biological perspectives on human development*. SAGE.

Brugha, T. S., McManus, S., Bankart, J., Scott, F., Purdon, S., Smith, J., Bebbington, P., Jenkins, R., & Meltzer, H. (2011). Epidemiology of Autism Spectrum Disorders in Adults in the Community in England. *Archives of General Psychiatry*, 68(5), 459.  
<https://doi.org/10.1001/archgenpsychiatry.2011.38>

Bukowski, W. M., Hoza, B., & Boivin, M. (1994). Measuring Friendship Quality During Pre- and Early Adolescence: The Development and Psychometric Properties of the Friendship Qualities Scale. *Journal of Social and Personal Relationships*, 11(3), 471–484. <https://doi.org/10.1177/0265407594113011>

Cage, E., Di Monaco, J., & Newell, V. (2018). Experiences of Autism Acceptance and Mental Health in Autistic Adults. *Journal of Autism and Developmental Disorders*, 48(2), 473–484. <https://doi.org/10.1007/s10803-017-3342-7>

Cage, E., & Troxell-Whitman, Z. (2019). Understanding the Reasons, Contexts and Costs of Camouflaging for Autistic Adults. *Journal of Autism and Developmental Disorders*.  
<https://doi.org/10.1007/s10803-018-03878-x>

Calder, L., Hill, V., & Pellicano, E. (2012). ‘Sometimes I want to play by myself’: Understanding what friendship means to children with autism in mainstream primary schools. *Autism*, 17(3), 296–316. <https://doi.org/10.1177/1362361312467866>

- Chamberlain, B., Kasari, C., & Rotheram-Fuller, E. (2007). Involvement or Isolation? The Social Networks of Children with Autism in Regular Classrooms. *Journal of Autism and Developmental Disorders*, 37(2), 230–242. <https://doi.org/10.1007/s10803-006-0164-4>
- Charman, T., Pellicano, E., Peacey, L., Peacey, N., Forward, K., & Dockrell, J. (2011). *AET report: What is good practice in autism education?* IOE; Centre for Research in Autism and Education.
- Coates, J., & Vickerman, P. (2013). A review of methodological strategies for consulting children with special educational needs in physical education. *European Journal of Special Needs Education*, 28(3), 333–347. <https://doi.org/10.1080/08856257.2013.797705>
- Cook, A., Ogden, J., & Winstone, N. (2017). Friendship motivations, challenges and the role of masking for girls with autism in contrasting school settings. *European Journal of Special Needs Education*, 1–14. <https://doi.org/10.1080/08856257.2017.1312797>
- Cridland, E., Jones, S., Caputi, P., & Magee, C. (2014). Being a Girl in a Boys' World: Investigating the Experiences of Girls with Autism Spectrum Disorders During Adolescence. *Journal of Autism and Developmental Disorders*, 44(6), 1261–1274. <https://doi.org/10.1007/s10803-013-1985-6>
- Croydon, A., Remington, A., Kenny, L., & Pellicano, E. (2016). *Satellite classes: A promising model for education children and young people on the autism spectrum*. University College London.
- Curtis, K., Roberts, H., Copperman, J., Downie, A., & Liabo, K. (2004). "How come I don't get asked no questions?" Researching "hard to reach" children and teenagers. *Child & Family Social Work*, 9(2), 167–175. <https://doi.org/10.1111/j.1365-2206.2004.00304.x>

- Dann, R. (2011). Look out! 'Looked after'! Look here! Supporting 'looked after' and adopted children in the primary classroom. *Education 3-13*, 39(5), 455–465.  
<https://doi.org/10.1080/03004279.2010.488069>
- De Goede, I., Branje, S., & Meeus, W. (2009). Developmental changes and gender differences in adolescents' perceptions of friendships. *Journal of Adolescence*, 32(5), 1105–1123.  
<https://doi.org/10.1016/j.adolescence.2009.03.002>
- Dean, M., Harwood, R. & Kasari, C. (2017). The art of camouflage: Gender differences in the social behaviours of girls and boys with autism spectrum disorder. *Autism*, 21(6), 678–689. <https://doi.org/10.1177/1362361316671845>
- Dean, M., Kasari, C., Shih, W., Frankel, F., Whitney, R., Landa, R., Lord, C., Orlich, F., King, B., & Harwood, R. (2014). The peer relationships of girls with ASD at school: Comparison to boys and girls with and without ASD. *Journal of Child Psychology and Psychiatry*, 55(11), 1218–1225. <https://doi.org/10.1111/jcpp.12242>
- Demetriou, E., Marilena, M. & Guastella, A. (2019). Executive Function in Autism Spectrum Disorder: History, Theoretical Models, Empirical Findings and Potential as an Endophenotype. *Frontiers in Psychiatry*. (10) 1-17.
- Department for Children, Schools and Families. (2009). *Inclusion development programme primary and secondary. Supporting pupils on the autism spectrum*. Retrieved from <https://www.gov.uk/government/publications/inclusion-development-programme-primary-and-secondary-supporting-pupils-on-the-autism-spectrum>.
- Department for Children, Schools and Families and Department for Education. (2017). *Transforming children and young people's mental health provision. A Green Paper*.
- Department for Education. (2014). *Special Needs in England*. Department for Education.
- Department for Education. (2015a). *Area guidelines for SEND and alternative provision*.  
Department for Education.

Department for Education. (2015b). *Special educational needs and disability code of practice: 0 to 25 years*.

Department for Education. (2019). *Special educational needs in England: January 2019*.

Duvekot, J., van der Ende, J., Verhulst, F. C., Slappendel, G., van Daalen, E., Maras, A., &

Greaves-Lord, K. (2017). Factors influencing the probability of a diagnosis of autism spectrum disorder in girls versus boys. *Autism*, 21(6), 646–658.

<https://doi.org/10.1177/1362361316672178>

Dworzynski, A., Ronald, A., Bolton, P. & Happé, F. (2012). How Different Are Girls and Boys

Above and Below the Diagnostic Threshold for Autism Spectrum Disorders? *Journal of the American Academy of Child & Adolescent Psychiatry*, 51(8), 788–797.

<https://doi.org/10.1016/j.jaac.2012.05.018>

Falkmer, Anderson, Falkmer, & Horlin. (2013). Diagnostic procedures in autism spectrum

disorders: A systematic literature review. *European Child & Adolescent Psychiatry*, 22(6), 329–340. <https://doi.org/10.1007/s00787-013-0375-0>

Falkmer, M., Anderson, K., Joosten, A., & Falkmer, T. (2015). Parents' Perspectives on

Inclusive Schools for Children with Autism Spectrum Conditions. *International Journal of Disability, Development and Education*, 62(1), 1–23.

<https://doi.org/10.1080/1034912X.2014.984589>

Fisher, L. (2019). *Gender Dysphoria and Autism Spectrum Condition: The Development of*

*Gender Identity*.

Fombonne, E. (2003). Epidemiological Surveys of Autism and Other Pervasive Developmental

Disorders: An Update. *Journal of Autism and Developmental Disorders; New York*, 33(4), 365–382. <http://dx.doi.org.libproxy.ucl.ac.uk/10.1023/A:1025054610557>

Fombonne, E. (2005). The Changing Epidemiology of Autism. *Journal of Applied Research in*

*Intellectual Disabilities*, 18(4), 281–294. [https://doi.org/10.1111/j.1468-](https://doi.org/10.1111/j.1468-3148.2005.00266.x)

[3148.2005.00266.x](https://doi.org/10.1111/j.1468-3148.2005.00266.x)



- Frederickson, N., Jones, A., & Lang, J. (2010). Inclusive provision options for pupils on the autistic spectrum. *Journal of Research in Special Educational Needs*, 10(12), 63–73.
- Gilmore, S., Frederick, L., Santillan, L., & Locke, J. (2018). The games they play: Observations of children with autism spectrum disorder on the school playground. *Autism*, 136236131881198. <https://doi.org/10.1177/1362361318811987>
- Gioia, G., Isquith, P., Kenworthy, L., & Barton, R. (2002). Profiles of Everyday Executive Function in Acquired and Developmental Disorders. *Child Neuropsychology*, 8(2), 121–137.
- Goldman, S. (2013). Opinion: Sex, gender and the diagnosis of autism—A biosocial view of the male preponderance. *Research in Autism Spectrum Disorders*, 7(6), 675–679. <https://doi.org/10.1016/j.rasd.2013.02.006>
- Gould, J., & Ashton-Smith, J. (2011). Missed diagnosis or misdiagnosis? Girls and women on the autism spectrum. *GAP*, 12(1), 34–41.
- Great Britain. (2017). Children with special educational needs and disabilities (SEND): Extra help. Retrieved August 28, 2019, from <https://www.gov.uk/children-with-special-educational-needs/extra-SEN-help>.
- Greathead, S., Yates, R., Hill, V., Kenny, L., Croydon, A., & Pellicano, E. (2016). Supporting Children with Severe-to-profound Learning Difficulties and Complex Communication Needs to Make Their Views Known: Observation Tools and Methods. *Topics in Language Disorders*, 36.
- Guest, G., MacQueen, K., & Namey, E. (2014). *Applied thematic analysis*. SAGE.
- Happé, F. (2015). Autism as a neurodevelopmental disorder of mind-reading. *Journal of the British Academy*, 3. <https://doi.org/10.5871/jba/003.197>
- Head, A., McGillivray, J., & Stokes, M. (2014). Gender differences in emotionality and sociability in children with autism spectrum disorders. *Molecular Autism*, 5(1), 19.

- Hebron, J., & Bond, C. (2017). Developing mainstream resource provision for pupils with autism spectrum disorder: Parent and pupil perceptions. *European Journal of Special Needs Education*, 32(4), 556–571. <https://doi.org/10.1080/08856257.2017.1297569>
- Hendrickx, S. (2015). *Women and Girls with Autism Spectrum Disorder: Understanding Life Experiences from Early Childhood to Old Age*. Jessica Kingsley Publishers.
- Hill, V., Croydon, A., Greathead, S., Kenny, L., Yates, R., & Pellicano, E. (2016). Research methods for children with multiple needs: Developing techniques to facilitate all children and young people to have “a voice”. *Educational & Child Psychology*, 33(3), 26–43.
- Hill, E. & Frith, U. (2003). Understanding autism: Insights from mind and brain. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, 358(1430), 281–289. <https://doi.org/10.1098/rstb.2002.1209>
- Hiller, R., Young, R., & Weber, N. (2014). Sex Differences in Autism Spectrum Disorder based on DSM-5 Criteria: Evidence from Clinician and Teacher Reporting. *Journal of Abnormal Child Psychology*, 42(8), 1381–1393. <https://doi.org/10.1007/s10802-014-9881-x>
- Hiller, R., Young, R., & Weber, N. (2016). Sex differences in pre-diagnosis concerns for children later diagnosed with autism spectrum disorder. *Autism*, 20(1), 75–84. <https://doi.org/10.1177/1362361314568899>
- Holliday-Willey, L. (2014). *Pretending to be Normal*. Jessica Kingsley.
- Holtmann, M., Bölte, S., & Poustka, F. (2007). Autism spectrum disorders: Sex differences in autistic behaviour domains and coexisting psychopathology. *Developmental Medicine & Child Neurology*, 49(5), 361–366. <https://doi.org/10.1111/j.1469-8749.2007.00361.x>
- Howlin, P., (2005). Outcomes in Autism Spectrum Disorders. In F. Volkmar & C. Klin (Eds.), *Handbook of Autism and Pervasive Developmental Disorders*. Wiley.

- Hull, L., Lai, M-C., Baron-Cohen, S., Allison, C., Smith, P., Petrides, K., & Mandy, W. (2019). Gender differences in self-reported camouflaging in autistic and non-autistic adults. *Autism*, 136236131986480. <https://doi.org/10.1177/1362361319864804>
- Hull, L., Mandy, W., Lai, M-C., Baron-Cohen, S., Allison, C., Smith, P., & Petrides, K. (2019). Development and Validation of the Camouflaging Autistic Traits Questionnaire (CAT-Q). *Journal of Autism and Developmental Disorders*, 49(3), 819–833. <https://doi.org/10.1007/s10803-018-3792-6>
- Hull, L., Petrides, K., Allison, C., Smith, P., Baron-Cohen, S., Lai, M-C., & Mandy, W. (2017). “Putting on My Best Normal”: Social Camouflaging in Adults with Autism Spectrum Conditions. *Journal of Autism and Developmental Disorders*, 47(8), 2519–2534. <https://doi.org/10.1007/s10803-017-3166-5>
- Humphrey, N., & Lewis, S. (2008). ‘Make me normal’: The views and experiences of pupils on the autistic spectrum in mainstream secondary schools. *Autism*, 12(1), 23–46. <https://doi.org/10.1177/1362361307085267>
- Izuma, K., Matsumoto, K., Camerer, C. F., & Adolphs, R. (2011). Insensitivity to social reputation in autism. *Proceedings of the National Academy of Sciences*, 108(42), 17302–17307. <https://doi.org/10.1073/pnas.1107038108>
- Jamison, T., & Schuttler, J. (2017). Overview and Preliminary Evidence for a Social Skills and Self-Care Curriculum for Adolescent Females with Autism: The Girls Night Out Model. *Journal of Autism and Developmental Disorders*, 47(1), 110–125. <https://doi.org/10.1007/s10803-016-2939-6>
- Johnson, M., Jones, E. & Gliga, T. (2015). Brain adaptation and alternative developmental trajectories. *Development and Psychopathology*, 27(2), 425–442. <https://doi.org/10.1017/S0954579415000073>
- Kamenopoulou, L. (2016). Ecological Systems Theory: A valuable framework for research on inclusion and special educational needs/disabilities. *Pedagogy*, 88(4), 515–527.

- Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2(3), 217–250.
- Kasari, C., Locke, J., Gulsrud, A., & Rotheram-Fuller, E. (2011). Social Networks and Friendships at School: Comparing Children With and Without ASD. *Journal of Autism and Developmental Disorders*, 41(5), 533–544. <https://doi.org/10.1007/s10803-010-1076-x>
- Kelly, G. (1955). *The psychology of personal constructs*. Routledge.
- Kenny, L., Cribb, S. & Pellicano, E. (2019) Childhood Executive Function Predicts Later Autistic Features and Adaptive Behaviour in Young Autistic People: A 12-Year Prospective Study. *Journal of Abnormal Child Psychology* (47) 1089-1099.
- Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016). Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism*, 20(4), 442–462. <https://doi.org/10.1177/1362361315588200>
- Kirkovski, M., Enticott, P., & Fitzgerald, P. (2013). A Review of the Role of Female Gender in Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*, 43(11), 2584–2603. <https://doi.org/10.1007/s10803-013-1811-1>
- Koenig, K., & Tsatsanis, K. (2005). Pervasive developmental disorders in girls. In *Handbook of behavioural and emotional problems* (pp. 211–237). NY: Kluwer Academic Publishers.
- Kopp, S., & Gillberg, C. (2011). The Autism Spectrum Screening Questionnaire (ASSQ)-Revised Extended Version (ASSQ-REV): An instrument for better capturing the autism phenotype in girls? A preliminary study involving 191 clinical cases and community controls. *Research in Developmental Disabilities*, 32(6), 2875–2888. <https://doi.org/10.1016/j.ridd.2011.05.017>
- Kreiser, N., & White, S. (2014). ASD in Females: Are We Overstating the Gender Difference in Diagnosis? *Clinical Child and Family Psychology Review*, 17(1), 67–84. <https://doi.org/10.1007/s10567-013-0148-9>

- Lai, M., Lombardo, M., Auyeung, B., Chakrabarti, B., & Baron-Cohen, S. (2015). Sex/Gender Differences and Autism: Setting the Scene for Future Research. *Journal of the American Academy of Child & Adolescent Psychiatry*, 54(1), 11–24.  
<https://doi.org/10.1016/j.jaac.2014.10.003>
- Lai, M., Lombardo, M., Ruigrok, A., Chakrabarti, B., Auyeung, B., Szatmari, P., Happé, F., Baron-Cohen, S., & MRC AIMS Consortium. (2017). Quantifying and exploring camouflaging in men and women with autism. *Autism*, 21(6), 690–702.  
<https://doi.org/10.1177/1362361316671012>
- Landor, F., & Perepa, P. (2017). Do resource bases enable social inclusion of students with Asperger syndrome in a mainstream secondary school: DO RESOURCE BASES ENABLE SOCIAL INCLUSION? *Support for Learning*, 32(2), 129–143.  
<https://doi.org/10.1111/1467-9604.12158>
- Lee, L., Harrington, R., Louie, B., & Newschaffer, C. (2008). Children with Autism: Quality of Life and Parental Concerns. *Journal of Autism and Developmental Disorders*, 38(6), 1147–1160. <https://doi.org/10.1007/s10803-007-0491-0>
- Lindsay, G. (2007). Educational Psychology and the effectiveness of inclusive education / mainstreaming. *British Journal of Educational Psychology*, 77, 1–24.
- Lindsay, G., Ricketts, J., Peacey, L., Dockrell, J., & Charman, T. (2016). Meeting the educational and social needs of children with language impairment or autism spectrum disorder: The parents' perspectives: Perspectives of parents of children with LI or ASD. *International Journal of Language & Communication Disorders*, 51(5), 495–507. <https://doi.org/10.1111/1460-6984.12226>
- Livingston, L., Colvert, E., the Social Relationships Study Team, Bolton, P., & Happé, F. (2019). Good social skills despite poor theory of mind: Exploring compensation in autism spectrum disorder. *Journal of Child Psychology and Psychiatry*, 60(1), 102–110.  
<https://doi.org/10.1111/jcpp.12886>

- Livingston, L., & Happé, F. (2017). Conceptualising compensation in neurodevelopmental disorders: Reflections from autism spectrum disorder. *Neuroscience & Biobehavioral Reviews*, 80, 729–742. <https://doi.org/10.1016/j.neubiorev.2017.06.005>
- Livingston, L., Shah, P., & Happé, F. (2019). Compensatory strategies below the behavioural surface in autism: A qualitative study. *The Lancet Psychiatry*, 6(9), 766–777. [https://doi.org/10.1016/S2215-0366\(19\)30224-X](https://doi.org/10.1016/S2215-0366(19)30224-X)
- Locke, J., Ishijima, E., Kasari, C., & London, N. (2010). Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an inclusive school setting: Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an inclusive school setting. *Journal of Research in Special Educational Needs*, 10(2), 74–81. <https://doi.org/10.1111/j.1471-3802.2010.01148.x>
- Loomes, R., Hull, L., & Mandy, W. (2017). What Is the Male-to-Female Ratio in Autism Spectrum Disorder? A Systematic Review and Meta-Analysis. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(6), 466–474. <https://doi.org/10.1016/j.jaac.2017.03.013>
- Lord, C., DiLavore, P., Gotham, K., Guthrie, W., & Luyster, R. (2012). *Autism diagnostic observation schedule: ADOS-2* (2nd Edition). Los Angeles.
- Lord, C., Rutter, M., & Le Couteur, A. (1994). Autism Diagnostic Interview—Revised: A revised version of a diagnostic interview for caregivers of individuals with possible pervasive developmental disorders. *Journal of Autism and Developmental Disorders*, 24(5), 659–685.
- Lord, C., Schopler, E., & Revicki, D. (1982). Sex differences in autism. *Journal of Autism and Developmental Disorders*, 12(4), 317–330. <https://doi.org/10.1007/BF01538320>
- Magiati, I., Tay, X., & Howlin, P. (2014). Cognitive, language, social and behavioural outcomes in adults with autism spectrum disorders: A systematic review of longitudinal follow-

- up studies in adulthood. *Clinical Psychology Review*, 34(1), 73–86.  
<https://doi.org/10.1016/j.cpr.2013.11.002>
- Makin, C., Hill, V., & Pellicano, E. (2017). The primary-to-secondary school transition for children on the autism spectrum: A multi-informant mixed-methods study. *Autism & Developmental Language Impairments*, 2, 239694151668483.  
<https://doi.org/10.1177/2396941516684834>
- Mandy, W. (2019). Social camouflaging in autism: Is it time to lose the mask? *Autism*, 23(8), 1879–1881. <https://doi.org/10.1177/1362361319878559>
- Mandy, W., Chilvers, R., Chowdhury, U., Salter, G., Seigal, A., & Skuse, D. (2012). Sex Differences in Autism Spectrum Disorder: Evidence from a Large Sample of Children and Adolescents. *Journal of Autism and Developmental Disorders; New York*, 42(7), 1304–1313. <http://dx.doi.org.libproxy.ucl.ac.uk/10.1007/s10803-011-1356-0>
- Mandy, W., Murin, M., Baykaner, O., Staunton, S., Hellriegel, J., Anderson, S., & Skuse, D. (2015b). The transition from primary to secondary school in mainstream education for children with autism spectrum disorder. *Autism*, 20(1), 5–13.  
<https://doi.org/10.1177/1362361314562616>
- Maxwell, J. (2012). *A realist approach for qualitative research*. SAGE Publications.
- Mays, N., & Pope, C. (1995). Observational methods in health care settings. *British Medical Journal*, 311, 182–184.
- McAllister, K., & Hadjri, K. (2013). Inclusion and the special educational needs (SEN) resource base in mainstream schools: Physical factors to maximise effectiveness. *Support for Learning*, 28(2), 57–65.
- McCrimmon, A., & Smith, A. (2013). Review of the *Wechsler Abbreviated Scale of Intelligence, Second Edition (WASI-II)*. *Journal of Psychoeducational Assessment*, 31(3), 337–341. <https://doi.org/10.1177/0734282912467756>

- McDonald, T., & Machalicek, W. (2013). Systematic review of intervention research with adolescents with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 7(11), 1439–1460.
- McDuffie, K., & Scruggs, T. (2008). The Contributions of Qualitative Research to Discussions of Evidence-Based Practice in Special Education. *Intervention in School and Clinic*, 44(2), 91–97. <https://doi.org/10.1177/1053451208321564>
- McFayden, T., Albright, J., Muskett, A., & Scarpa, A. (2018). The sex discrepancy in an ASD diagnosis: An in depth look at restricted interests and repetitive behaviours. *Journal of Autism and Developmental Disorders*, 49, 1693–1699.
- McFayden, T., Antezana, L., Albright, J., Muskett, A., & Scarpa, A. (2019). Sex Differences in an Autism Spectrum Disorder Diagnosis: Are Restricted Repetitive Behaviours and Interests the Key? *Review Journal of Autism and Developmental Disorders*. <https://doi.org/10.1007/s40489-019-00183-w>
- McNelles, L., & Connolly, J. (1999). Intimacy between adolescent friends: Age and gender differences in intimate affect and intimate behaviours. *Journal of Research on Adolescence*, 92(2), 143–159.
- McNerney, C., Hill, V., & Pellicano, E. (2015). Choosing a secondary school for young people on the autism spectrum: A multi-informant study. *International Journal of Inclusive Education*, 19(10), 1096–1116. <https://doi.org/10.1080/13603116.2015.1037869>
- Milton, D. (2012). On the ontological status of autism: The ‘double empathy problem.’ *Disability & Society*, 27(6), 883–887. <https://doi.org/10.1080/09687599.2012.710008>
- Moran, H. (2001). Who Do You Think You Are? Drawing the Ideal Self: A Technique to Explore a Child’s Sense of Self. *Clinical Child Psychology and Psychiatry*, 6(4), 599–604. <https://doi.org/10.1177/1359104501006004016>



- Moyse, R., & Porter, J. (2015). The experience of the hidden curriculum for autistic girls at mainstream primary schools. *European Journal of Special Needs Education, 30*(2), 187–201. <https://doi.org/10.1080/08856257.2014.986915>
- Myles, B., Hudson, J., Lee, H., Smith, S., Tien, K., Chou, Y., & Swanson, T. (2007). A Large Scale Study of the Characteristics of Asperger Syndrome. *Education and Training in Developmental Disabilities, 42*(4), 448–459.
- National Autistic Society. (2017). *Autism and Education in England 2017. A report by the All Party Parliamentary Group on Autism on how the education system in England works for children and young people on the autism spectrum*. Retrieved from <https://www.autism.org.uk/getinvolved/campaign/appga/highlights.aspx>.
- Neal, S., & Frederickson, N. (2016). ASD transition to mainstream secondary: A positive experience? *Educational Psychology in Practice, 32*(4), 355–373. <https://doi.org/10.1080/02667363.2016.1193478>
- Nolan, A., & Moreland, N. (2014). The process of psychological consultation. *Educational Psychology in Practice, 30*(1), 63–77. <https://doi.org/10.1080/02667363.2013.873019>
- O'Hagan, S., & Hebron, J. (2017). Perceptions of friendship among adolescents with autism spectrum conditions in a mainstream high school resource provision. *European Journal of Special Needs Education, 32*(3), 314–328. <https://doi.org/10.1080/08856257.2016.1223441>
- Oliver, M. (1986). Social Policy and Disability: Some Theoretical Issues. *Disability, Handicap & Society, 1*(1), 5–17. <https://doi.org/10.1080/02674648666780021>
- Pearpoint, J., O'Brien, J., & Forest, M. (1993). *Path: Planning alternative tomorrows with hope for schools, organizations, business, families: a workbook for planning positive possible futures*. Inclusion Press.

- Pellicano, E. (2010) Individual differences in Executive Function and central coherence predict developmental changes in theory of mind in autism. *Developmental Psychology*, 46, 530-544.
- Prinstein, M., Boergers, J., & Vernberg, E. (2001). Overt and relational aggression in adolescents: Social-psychological adjustment of aggressors and victims. *Journal of Clinical Child Psychology*, 30(4), 479–491.
- Robinson, L., Bond, C., & Oldfield, J. (2018). A UK and Ireland survey of educational psychologists' intervention practices for students with autism spectrum disorder. *Educational Psychology in Practice*, 34(1), 58–72.  
<https://doi.org/10.1080/02667363.2017.1391066>
- Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researchers (2nd ed.)*. Blackwell.
- Rutter, M., Bailey, A., & Lord, C. (2003). *Social communication questionnaire*. CA: Western Psychological Services.
- Rutter, M., Le Couteur, A., & Lord, C. (2003). *Autism Diagnostic Interview Revised*. Western Psychological Services.
- Savage, R. (2005). Friendship and bullying patterns in children attending a language base in a mainstream school. *Educational Psychology in Practice*, 21(1), 23–36.  
<https://doi.org/10.1080/02667360500035140>
- Sedgewick, F., Hill, V., & Pellicano, E. (2019). 'It's different for girls': Gender differences in the friendships and conflict of autistic and neurotypical adolescents. *Autism*, 23(5), 1119–1132. <https://doi.org/10.1177/1362361318794930>
- Sedgewick, F., Hill, V., & Pellicano, E. (2018). Parent perspectives on autistic girls' friendships and futures. *Autism & Developmental Language Impairments*, 3, 239694151879449.  
<https://doi.org/10.1177/2396941518794497>

- Sedgewick, F., Hill, V., Yates, R., & Pickering, L. (2016). Gender Differences in the Social Motivation and Friendship Experiences of Autistic and Non-Autistic Adolescents. *Journal of Autism and Developmental Disorders*, 46(4), 1297–1306.
- Solomon, M., Miller, M., Taylor, S., Hinshaw, S., & Carter, C. (2012). Autism Symptoms and Internalizing Psychopathology in Girls and Boys with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*, 42(1), 48–59.  
<https://doi.org/10.1007/s10803-011-1215-z>
- Sproston, K., Sedgewick, F., & Crane, L. (2017). Autistic girls and school exclusion: Perspectives of students and their parents. *Autism & Developmental Language Impairments*, 2, 239694151770617. <https://doi.org/10.1177/2396941517706172>
- Squires, G. (2010). Countering the argument that educational psychologists need specific training to use cognitive behavioural therapy. *Emotional and Behavioural Difficulties*, 15(4), 279–294.
- Sutherland, R., Hodge, A., Bruck, S., Costley, D., & Klieve, H. (2017). Parent-reported differences between school-aged girls and boys on the autism spectrum. *Autism*, 21(6), 785–794. <https://doi.org/10.1177/1362361316668653>
- Thompson, T., Caruso, M., & Ellerbeck, K. (2003). Sex Matters in Autism and Other Developmental Disabilities. *Journal of Learning Disabilities*, 7(4), 345–362.  
<https://doi.org/10.1177/1469004703074003>
- Tierney, S., Burns, J., & Kilbey, E. (2016). Looking behind the mask: Social coping strategies of girls on the autistic spectrum. *Research in Autism Spectrum Disorders*, 23, 73–83.  
<https://doi.org/10.1016/j.rasd.2015.11.013>
- Tobin, H., Staunton, S., Mandy, W., Skuse, D., Hellriegel, J., Baykaner, O., Anderson, S., & Murin, M. (2012). A qualitative examination of parental experience of the transition to mainstream secondary school for children with autism spectrum disorder. *Educational & Child Psychology*, 29(1), 75–85.

UNESCO. (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*.

Van Der Miesen, A., Hurley, H., & De Vries, A. (2016). Gender dysphoria and autism spectrum disorder: A narrative review. *International Review of Psychiatry*, 28(1), 70–80.  
<https://doi.org/10.3109/09540261.2015.1111199>

Waddington, E., & Reed, P. (2006). Parents' and local education authority officers' perceptions of the factors affecting the success of inclusion of pupils with autistic spectrum disorders. *International Journal of Special Education*, 21.

Wagner, P. (2000). Consultation: Developing a comprehensive approach to service delivery. *Educational Psychology in Practice*, 16(1), 9–18.

Wechsler, D. (2011). *Wechsler Abbreviated Scale of Intelligence, Second Edition (WASI-II)*. TX: NCS Pearson.

Whittaker, P. (2007). Provision for youngsters with autistic spectrum disorders in mainstream schools: What parents say and what they want. *British Journal of Special Education*, 34(3), 170–178.

Wilkinson, L. (2008). Suffering in silence: Girls with Asperger syndrome. *Autism Spectrum Quarterly*. [https://works.bepress.com/lee\\_wilkinson/13/](https://works.bepress.com/lee_wilkinson/13/)

Williams, J., & Hanke, D. (2007). Do you want to know what sort of school I want? Optimum features of school provision for pupils with Autistic Spectrum Disorder. *Good Autism Practise*.

Williams White, S., Keonig, K., & Scahill, L. (2007). Social Skills Development in Children with Autism Spectrum Disorders: A Review of the Intervention Research. *Journal of Autism and Developmental Disorders*, 37(10), 1858–1868.  
<https://doi.org/10.1007/s10803-006-0320-x>

Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method*. PA: Open University Press.

- Winstone, N., Huntington, C., Goldsack, L., Kyrou, E., & Millward, L. (2014). Eliciting rich dialogue through the use of activity-oriented interviews: Exploring self-identity in autistic young people. *Childhood*, 21(2), 190–206.  
<https://doi.org/10.1177/0907568213491771>
- Wong, C., Odom, S., Hume, K., Cox, A., Fettig, A., Kucharczyk, S., & Schultz, T. (2015). Evidence based practices for children, youth, and young adults with autism spectrum disorder: A comprehensive review. *Journal of Autism and Developmental Disorders*, 45, 1951–1966.
- World Health Organisation. (2018). *International classification of diseases for mortality and morbidity statistics (11th Revision)*.
- Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology & Health*, 15(2), 215–228. <https://doi.org/10.1080/08870440008400302>

## **Appendices**

### **Appendix A – Literature search**

A comprehensive search for peer reviewed studies was conducted in January 2020 using three databases: PsychINFO, EBSCO Psychology and Behavioural Science Collection and UCL Explore. Search terms were initially identified from preliminary exploratory research and developed following examination of associated key words on relevant research. Search terms included a combination of 'Autis\*', 'ASC', 'ASD', 'Camouflaging', 'Masking', 'Coping Strategies', 'Compensation', 'Females', 'Girls', 'Specialist schooling', 'Resource provision', 'Resource Base', 'Adolescence' and 'Adaptive skills'.

Abstracts of each article were reviewed to decide whether they met inclusion criteria: participants must include at least one female, who had either received an autism diagnosis or been identified to show traits of autism. Studies including adult populations were included, due to a paucity of research focusing on the experiences of girls under 18 years. Due to the limited studies examining resource provisions for pupils with autism, one male only study was included that explored friendships within resource provisions.

## **Appendix B – Background measures**

Background data was gathered to characterise the participants in the study.

### **Wechsler Abbreviated Scale of Intelligence 2<sup>nd</sup> edition (WASI-II)**

(Wechsler, 2011): The WASI-II is a brief assessment that gives a reliable measure of cognitive ability for individuals between the ages of 6-90 years. The two-subtest version was chosen due to its quick administration time (approximately 15 minutes) and excellent reliability. The assessment measures verbal cognitive ability through the Vocabulary subtest, which requires the individual to explain increasingly difficult words (e.g., what does 'entertain' mean?). It also measures non-verbal cognitive ability via the Matrix Reasoning subtest, which requires the individual to choose an image that best completes increasingly complex patterns. Reliability statistics for the FSIQ-2 composite are 0.93 for the child sample and 0.94 for the adult sample (Wechsler, 2011). Correlations between the WASI-II and the original WASI, WAIS-IV and WISC-IV have shown acceptable (0.71) through to excellent (0.92) concurrent validity (Wechsler 2011).

It is important to recognise that there are challenges inherent with assessing cognitive ability using standardised assessments. A strength of this assessment is that it has been standardised for children, including those with special educational needs (SEN) (McCrimmon & Smith, 2013). Despite this, the assessment can only be considered a snapshot of the girl's ability on the day, recognising that a range of factors, including anxiety and motivation, could have impacted their performance. When completing the assessment all the girls appeared calm and engaged and I consider that the WASI-II provided a good measure of their current abilities.

### **Social Communication Questionnaire (SCQ) Lifetime (Rutter et al.**

**2003).** The SCQ is a well-validated 40-item screening measure, based on the Autism Diagnostic Interview-Revised (ADI-R) (Rutter et al. 2003), a clinical structured interview used as part of autism diagnostic assessments. The SCQ lifetime is a parent report measure, which examines an individual's developmental characteristics between the ages of 4-5 years, alongside current behaviour and interaction. Example questions include: 'When she was 4 to 5,

did she show a normal range of facial expressions?’ and ‘Does she have any particular friends or a best friend?’ Each item requires a dichotomous ‘yes/no’ answer and the assessment takes parents 15 minutes to complete. All scored items are summed, resulting in a total for autism symptomology (range 0-39). Increasingly elevated scores suggest increased autism-based behaviours and scores of 15 or above indicate that further assessment is required. Validation studies suggest that when using the cut-off point of 15, the SCQ is a reliable screener of autism with sensitivity of 0.85 and specificity of 0.75 (Rutter et al. 2003). All eight parents completed the SCQ lifetime questionnaire about their daughter.

**Friendship Qualities Scale (FQS) (Bukowski et al. 1994)** The FQS evaluates quality of relationships and has been established as a reliable measure for exploring autistic children’s experiences of friendships (Calder et al., 2013; Kasari et al., 2011; Locke et al., 2010). Prior to completing the FQS, each girl was requested to name a ‘close friend’, explained as ‘the friend they most like to be with’ and to complete the questions with that friend in mind. All of the girls appeared confident to identify and name a friend. I confirmed that each girl was confident to use the 5-point scale and answered any queries before the girls began. All girls preferred me to read the questions aloud to them.

The scale is made up of 23 items, scored on a 5-point scale that range from 1 (not true) to 5 (very true). The scale covers five areas of friendship, including: Companionship (e.g., ‘my friend and I spend all our free time together’), Conflict (e.g. ‘I can get into fights with my friend’), Help (e.g., ‘my friend helps me when I am having trouble with something’), Security (e.g., ‘if I have a problem at school or home, I can talk to my friend about it’) and Closeness (e.g., ‘I feel happy when I am with my friend’). The Companionship and Conflict subscales have a minimum score of 4 and maximum score of 20. The Help, Security and Closeness subscales each have a minimum score of 5 and a maximum score of 25. Higher subscale scores reflect increased friendship quality (e.g., higher security scores represent increased safety and security in their relationships).

Within the original study that reported on this measure, the internal reliability of each subscale showed acceptable (0.71) to excellent validity (0.86) (Bukowski



et al., 1994). Although the FQS was not designed specifically for autistic pupils, it has been commonly used within autism research to measure autistic pupils' quality of friendships (Bauminger et al., 2004, 2008; Calder et al., 2012; Chamberlain et al., 2007). Sedgewick, Hill and Pellicano (2019) have reported similar reliability statistics within autistic groups (Cronbach's  $\alpha = 0.92$ ).

Within this study, the FQS was completed with all eight girls and scores from each subscale were calculated to provide an overall score for each friendship area. The combined subscales showed good internal consistency (Cronbach's  $\alpha = 0.82$ ). Internal consistency was also examined for each subscale with alpha coefficients estimated between 0.70 and 0.87. This is similar to the scores outlined by Bukowski et al. (1994) in their original study.

## Appendix C – Descriptions and researcher reflections on school contexts

Contextual school information was gathered from background questionnaires completed by educators, OFSTED reports and researcher observations.

	School One	School Two	School Three
<b>Resource base rooms</b>	Separate block with classrooms, a computer suite, sensory and calm-down rooms, a social room with a kitchen, toilets and a staff office. Shared outside space.	Ground floor of main school block. Includes classrooms and small therapy rooms, two large social spaces with kitchenette and computer suite. Small calm-down room. Shared outside space.	Large separate block with three floors of classrooms, multiple therapy rooms, three sensory rooms (with swings and hoists), quiet rooms, a separate cafeteria, and a large playground space that is fenced off from the main school.
<b>Equipment in Resource Base</b>	Card and board games, Lego, and art equipment	Card games, puzzles, art equipment and computers	Large games tables (table tennis, snooker, football). Individual pupil assigned laptops. Card and board games, Lego, and art equipment
<b>Environmental adaptations in resource base</b>	Noise reducing flooring, no hand dryers, assigned quiet areas to relax and individual pupil lockers for storage of equipment	Focused around making the social spaces less formal, using sofas and beanbags for pupils to relax on.	Individualised seating (e.g., rocking chairs, wobble cushions, spinning seats), noise and light adaptations, weighted blankets and home rooms with pupil lockers

**Researcher reflections on school contexts:**

Each resource base had clear and formal expectations around resource pupils' integration to mainstream lessons. However, during my observations and discussions with staff it was clear that in practice each school had differences in culture, attitude and priorities towards integration in mainstream lessons.

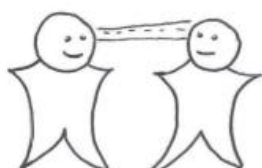





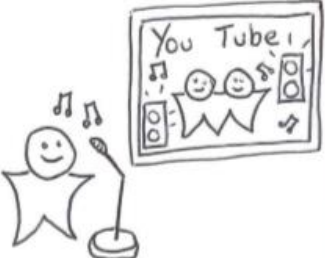

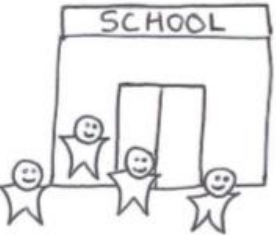
Within School One, pupils were expected to attend all their mainstream lessons and during my observations no pupils remained in the base unless timetabled for intervention. In contrast during my observations of School Two, several pupils remained in the resource base despite being timetabled to join mainstream lessons. Some pupils missed more than half their mainstream lessons, often negotiating their contribution (eg 'I will do my work here' or 'I will go to my next lesson'). The pupils' willingness to integrate appeared to be renegotiated each lesson, according to a wide range of factors such as consistency and familiarity of staff, subject preference, behavioural, physical and emotional needs.

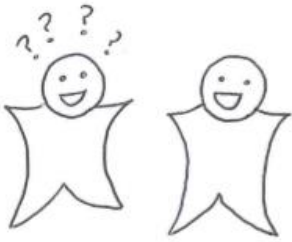



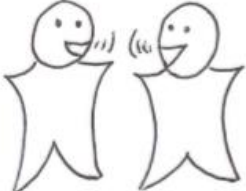

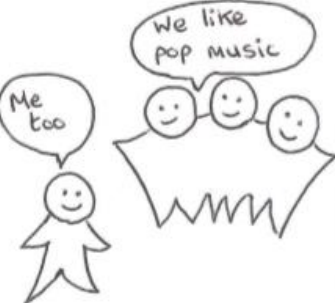


A similar flexible approach was evident across School Three, however there appeared to be increased individualised planning for each pupil, with staff having agreed expectations around lessons pupils were integrating into. The range of facilities, and size of the resource bases, resulted in a graduated approach to integration with some mainstream pupils joining resource base lessons for core subjects. This approach offered increased flexibility to personalise each pupil's timetable according to their individual needs, while maintaining access to a wide selection of academic lessons.



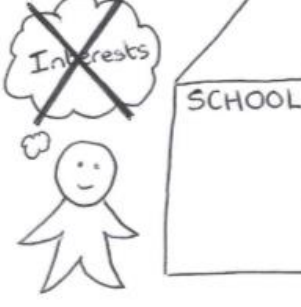
## Appendix D – Visual Scaling Cards

These were presented individually and rated on a four-point scale:

Never, Sometimes, Often and Always.

		
Make eye contact even though it is difficult.	Try to be like someone else?	Plan what to say to people before you meet them?
		
Keep conversation going by talking about special interests?	Try to copy what other people do?	Practice facial expressions in front of the mirror?
		
Watch people on TV or You Tube and try to copy their behaviours?	Try to follow rules or patterns to help get along with other people?	Hide certain ways you behave at school?

		
<p>Laugh at a joke that you don't understand?</p>	<p>Try to learn set responses to help conversation?</p>	<p>Pretend to feel relaxed even when feeling anxious?</p>
		
<p>Try to copy what other people wear?</p>	<p>Try to copy the way other people talk?</p>	<p>Pretend to be interested in topic during conversation?</p>
		
<p>Try to have the same interests to other people in your class?</p>	<p>Pretend to be busy on your phone so you don't have to talk to people?</p>	<p>Behave differently at home and school?</p>

		
<p>Think about the impression others have of me?</p>	<p>Join in with things even when I don't want to?</p>	<p>Hide your interests at school?</p>

## Appendix E – Girls responses on Visual Scaling Camouflaging

	Liana	Holly	Nia	Summer	Helen	Ivy	Alice	Miranda
Make eye contact even though it is difficult.	Often	Often	Some-times	Always	Always	Some-times	Always	Always
Try to be like someone else?	Never	Never	Never	Often	Some-times	Never	Some-times	Some-times
Plan what to say to people before you meet them?	Never	Some-times	Never	Never	Some-times	Often	Some-times	Never
Keep conversation going by talking about special interest?	Never	Often	Some-times	Never	Never	Often	Always	Always
Try to copy what other people do?	Never	Never	Never	Never	Some-times	Some-times	Some-times	Always
Practice facial expressions in front of the mirror?	Never	Never	Never	Always	Never	Some-times	Never	Some-times
Watch people on TV or YouTube and try to copy their behaviours?	Never	Some-times	Never	Often	Never	Never	Never	Never
Try to follow rules or patterns to help get along with other people?	Some-times	Always	Never	Always	Often	Always	Often	Always
Hide certain ways you behave at school?	Never	Always	Often	Some-times	Often	Never	Never	Always
Laugh at a joke that you don't understand?	Some-times	Often	Some-times	Always	Some-times	Some-times	Never	Never

Try to learn set responses to help conversation	Some-times	Often	Some-times	Often	Never	Some-times	Never	Never
Pretend to feel relaxed even when feeling anxious?	Some-times	Never	Never	Often	Often	Never	Some-times	Always
Try to copy what other people wear?	Never	Never	Never	Never	Never	Never	Never	Often
Try to copy the way other people talk?	Never	Never	Never	Always	Never	Some-times	Never	Some-times
Pretend to be interested in topic during conversation	Always	Never	Often	Some-times	Often	Always	Some-times	Never
Pretend to be busy on your phone so you don't have to talk to people?	Always	Often	Some-times	Never	Often	Never	Some-times	Never
Try to have the same interests to other people in your class?	Some-times	Never	Some-times	Some-times	Some-times	Often	Some-times	Some-times
Behave differently at home and school?	Never	Always	Often	Always	Always	Never	Always	Always
Think about the impression others have of me?	Never	Never	Never	Always	Always	Never	Always	Never
Join in with things even when I don't want to?	Often	Some-times	Never	Never	Some-times	Some-times	Never	Never
Hide your interests at school?	Often	Always	Never	Always	Never	Never	Never	Always



## Appendix F – Girls interview schedule

### Young person semi-structured interview:

“Hi, I’m Jo and this project is about the skills young people use in school. I’m going to be asking you to talk to me about yourself and things you are interested in, also about school, home and your friendships.

Before we start there are a few things I need to tell you; the first is that if you want to stop the interview at any time you can tell me “stop” or show me this stop card and we will finish straight away. If there is anything you don’t understand, please ask me about it.

I also want to check that you are happy for me to record the interviews so I can listen back and write down the things you say? Have you got any questions before we start?”

#### 1.) Can you tell me about yourself?

Example prompt questions (participant led):

- What do you like to do?
- What are your interests?
- What is your favourite TV programme/music?
- What clothes do you like to wear?

#### 2.) Tell me about your friends?

- Have you got a big group of friends, or one or two close friends?
- What do you do with your friends?
- How do you make friends?
- Is there anything that is not ‘cool’ to do around your friends?
- How do you try to fit in with your friends?
- Do you always understand what your friends are finding funny?

3.) Girls will complete a scaling activity, using visual/written prompts that describe various adaptive coping skills. They will rate these on a scale between Never, Sometimes, Often and Always.

- Brief discussion about these skills and how different coping skills make the girl feel.

4.) Can you tell me about your school? (this may be done as a drawing activity, where the girl draws their ideal and less ideal school and answer questions about it).

- What are your favourite lessons?
- What are the best parts of school?
- Are there any parts of school that you don’t like?
- Are there things about you, that you hide at school?
- When you are not sure what to do, how do deal with it?
- Do you like to be chosen in class (to answer questions etc)? If not, are there ways you avoid this?
- How are the resource base and mainstream school similar or different?

#### 5.) Do you behave the same at home and school?

## **Appendix G – Educator interview schedule**

### **Educator's semi-structured interview: (name will be substituted)**

"Hi, I'm Jo and this project aims to explore the coping skills girls with an autism diagnosis use in specialist school provisions. I'm going to be asking you about XXX's friendships, the coping skills she uses in school and any impact these skills have.

Before we start there are a few things I need to tell you; the first is to remind you that we can stop the interview at any time and you will not need to explain why. Everything we discuss will remain confidential and all information will be anonymised. If there is anything you don't understand, please ask me about it.

I also want to check that you are happy for me to record the interviews so I can listen back and write down the things we discuss? Have you got any questions before we start?"

- 1.) Tell me about XXX in school?
- 2.) What coping skills do you think XXX uses within the classroom?
- 3.) If XXX is unsure of the work, what will she do?

Example prompt questions, participant led:

- Does she wait and reference her peers?
- Does she use hiding strategies (writing small or illegibly, look away, remove herself from the classroom)
- Does she ask an adult for support?

- 4.) Does XXX hide or reduce behaviours associated with her autism in school?

Example prompt questions, participant led:

- Reduce or hide any repetitive behaviours?
- Reduce or hide unusual special interests?

### **Relationships and camouflaging**

- 5.) Tell me about XXX's relationships at school?

- Does she have a big group of friends, or a few close friends? (XXX's position within this?)
- Are the friendships stable or are there frequent conflicts?
- What do they do together (mainly talking or more play based?)
- Are you aware of things that XXX hides around her school friends?
- Does XXX try to 'fit in' with her peers, if so how?
- How does XXX manage with group work?

- 6.) Are you aware of any coping skills that XXX uses within social aspects of school?

Example prompt questions, participant led:

- Does she use practice her responses or use scripts?
- Does she mimic her peers?
- Does she try to follow rules or patterns of behaviour?

7.) Are there differences with how XXX presents during her time in the resource base and her time in the mainstream school?

- How do these vary?
- Which lessons are different?
- Where are social times spent?
- Does XXX try to hide her autism more in one situation compared to the other?

8.) Do you think XXX presents differently in school and at home?

9.) Do you think the coping skills XXX uses have a positive or negative impact on her?

10.) Does XXX present with signs of anxiety in school?

- What situations are these more evident?
- What signs do you notice?
- What helps to reduce the anxiety?

## **Appendix H – Parent interview schedule**

“Hi, I’m Jo and this project aims to explore the coping skills girls with an autism diagnosis use in specialist school provisions. I’m going to be asking you about your daughter’s autism diagnosis, her friendships, and the coping skills she uses both in and out of school.

Before we start there are a few things I need to tell you; the first is to remind you that we can stop the interview at any time and you will not need to explain why. Everything we discuss will remain confidential and all information will be anonymised. If there is anything you don’t understand, please ask me about it.

I also want to check that you are happy for me to record the interviews so I can listen back and write down the things we discuss? Have you got any questions before we start?”

- 1.) Can you tell me about your daughter and when she was diagnosed with autism?
- 2.) Can you tell me the biggest strengths and the biggest challenges that your daughter’s autism brings?
- 3.) Can you tell me about your daughter’s friendships?
  - Does she try to ‘fit in’ with others? If so, how?
  - Does she have similar interests to her friends?
  - Is there anything that your daughter hides from her friends?
- 4.) Are you aware of your daughter practising or learning social coping skills to help her socialise?
  - Does she mimic the way people speak or what they wear?
  - Does she practise social scripts or ways to communicate prior to the event?
  - Does she copy other people’s interests?
  - Does she create rules or look for patterns to help with social interaction?
  - Does she try to hide social anxiety and try to look relaxed?
- 5.) What helps your daughter to manage social situations?
- 6.) Does your daughter try to hide behaviours connected to her autism?
  - At school – resource base and mainstream?
  - At home?
  - Which behaviours?
- 7.) Does hiding her autism have an impact on your daughter afterwards?
- 8.) In what situations is your daughter most likely to use these camouflaging skills?
  - Are there parts of your daughter that she tries to hide when away from home?

9.) Do you think your daughter camouflages her needs in school?

- Does she behave differently within the resource base and the mainstream school?

10.) Do you think that camouflaging her needs, has a positive or a negative impact on your daughter?

11.) When do you think your daughter first started to camouflage?

- How has this changed over this time?

## **Appendix I – Observation schedule development and sample**

### **Observation background and development:**

The POPE is an interval coding system that provides quantitative and qualitative information examining social behaviour. It has been used in previous studies to explore autistic children's social interaction and play, including camouflaging behaviours (Dean et al., 2017; Gilmore et al., 2018). Previous studies have focused primarily on the primary age range (4 to 11 years) and playground-based peer engagement. Therefore, adaptations to the observation schedule are outlined below. These were developed from the broader literature to explore the girls' behaviours, both in the classroom and during social times (Cook et al., 2017; Moyse & Porter, 2015; Tierney et al., 2016).

Each observation lasted for twenty minutes. In line with Kasari's previous studies (2005; 2011), behaviours were observed for 40 consecutive seconds and coded for 20 seconds. Within the unstructured social context, activity states were measured through the amount of time pupils spent engaged with others, engaged in solitary activity, or on the periphery of activities. These overall activity states remained consistent with previous versions of the POPE (Dean et al., 2017), however the type of activity was updated due to the older age group and resource base environment. For example, joint engage activities, such as using 'play structures' and 'digging in sandpit' were replaced with shared craft and technology activities, such as 'shared phone games/music'. Within the mainstream and resource base lesson observations, activity state was measured according to the time that the girl was 'on' or 'off' task, as well as the presence of TA support.

Unusual behaviours followed the three overall categories; motor, sensory and vocal outlined by Gilmore et al. (2018). These were updated to accommodate the older age group and additional classroom context. Adaptations included sub-dividing motor behaviours into fidgeting, self-stimulatory and movement, separated according to subtlety of presentation. This adaptation aimed to recognise the small behavioural differences that may characterise this sample, even where they camouflaged their sensory preferences. Both emotional affect

and communicative exchanges followed previous observation schedules (Kasari 2005; Dean et al., 2017). Emotional state was measured through body language, including positive, neutral and negative affect, while communicative exchanges were measured according to initiation and success of response.

Due to the observations being completed during a single week, they can only be considered a 'snapshot' of the girls' social behaviours in context. Furthermore, despite attempting to be unobtrusive, it is possible that awareness of being observed may have caused the girls and their peer group to change their behaviour (see Mertens, 2015, for discussion). This is particularly pertinent when considering camouflaging behaviours, which are characterised by a desire to blend in. Nevertheless, inclusion of the qualitative data from the observations was considered valuable to characterise the context of each school, as well as to triangulate with the data collected through the interviews and questionnaires.

To examine frequency of observed behaviours for each observation, the codes were summed according to engagement state, behaviour and affect. Following piloting the observations, the qualitative notes were considered the most pertinent for analysis and were therefore prioritised. Despite this, the structure of the observation schedule remained helpful for organising the researcher observations and this was continued to be used during the data collection phase.

## Observation schedule and sample

<p>Class based Activity: <i>Activities young people participated in. Categorised as whole class or group based, periphery or individual.</i></p>	<p>Whole class or group based activities: Any activity that involves the whole class or a group within the class, usually classroom based but not always.</p>	<p>Teacher led activity: <i>Teacher instructing either the whole class or a group within the class</i></p>	Pupil paying attention to teacher:	Pupil paying attention to teacher, appearing alert and engaged with the activity.
			Pupil not paying attention to teacher:	Pupil not paying attention to teacher – pupil disengaged with the activity, perhaps looking away into the distance or engaged in different activity.
			Pupil interrupting teacher:	Pupil interrupting teacher – Pupils disturbing the continuity of the activity with unnecessary low-level interruptions, often by calling out, keeping hand in the air or quietly singing or humming.
			Pupil disrupting teacher:	Pupil disrupting activity – Pupils breaking the continuity of the activity with disruptions, often deliberate, such as throwing stationery.
		<p>Teacher asking questions: <i>as part of the lesson, teacher asking class or group within class, questions relating to activity.</i></p>	Pupil answers appropriately:	Pupils answers appropriately – where relevant pupils use agreed method of indicating that they wish to answer (eg raising hand), attempt to answer question in expected manner and level of detail. Answer does not need to be correct but does need to be on topic.
			Pupil answers, not appropriately:	Pupils answers, but not appropriately - Pupil answers either without waiting to be chosen (eg calling out or speaking over others), or does not answer on topic or for a suitable length of time (eg keeps talking when teacher is indicating it is time to finish).
			Pupil does not offer an answer:	Pupil does not offer an answer – does not use agreed method of indicating they wish to answer, perhaps looking down or away from the teacher.
		<p>Teacher led instructions: instructions or task set at a group level.</p>	Pupils successfully following instruction:	Pupil independently following teacher's instructions, in an appropriate manner (eg in the same time scale and manner as their peers).
			Pupils following instructions with additional facilitation:	Pupil making effort to follow teacher's instructions, but requiring additional facilitation. This might include referencing peers, additional prompts from teacher/TA.
			Pupils not following instructions:	Pupils not following instructions either with or without additional facilitation.
		Engagement with group work:	Pupil leading group work:	Pupil taking an active role leading the group, taking charge of the group and putting forward ways that the activity should be completed.



		Pupil involvement in small group or pair activities, groups normally between 2-8 pupils, though could be larger.	Pupil contributing to group work:	Pupil appearing engaged with the group work, making and accepting suggestions and ideas.
			Pupils observing group work:	Pupil watching the group work and appearing interested without contributing.
			Pupil disengaged from group work:	pupil appearing uninvolved with the group work, not offering contributions or taking part, possibly moving away.
			Pupil disrupting group work:	Pupil disrupting the group progress with the task either deliberately or inadvertently (eg discussing at length and going off topic).
		TA support: in class support provided by a teaching assistant (also known as Learning Support Assistant). TAs may be assigned directly to the individual pupil, shared between a few specific pupils or be provided for support of the whole class.	TA support to complete work:	Guidance from the TA to facilitate pupils understanding of the task and encourage them to complete it while providing required support, physical and/or emotional (eg scribing, reassurance)
			Social interaction between pupil and TA:	Interaction between the TA and pupil, which is not focused around work demands or management of behaviour (Eg talking about events in their everyday life).
			TA support to facilitate appropriate behaviour:	Guidance from the TA to enable the pupil to conform to the social expectations of the class, including following behavioural rules including the 'hidden curriculum' and expectations.
	Working individually: working individually within the class at a set activity.	Working individually: working individually within the class at a set activity.	Pupil independently on task:	Pupil will be completing the task as instructed by the teacher.
			Pupils waiting for help from teacher/TA:	Pupil indicating that they need support from the teacher or TA and feeling unable to proceed without it.
			Pupil off task and distracted:	Pupil not working on task and appear otherwise engaged, however not actively disrupting others.
			Pupil off task and disruptive:	Pupil not working on task and actively disturbing others concentration.
			Pupil interacting with peers:	Pupil interacting briefly with peers to request or supply help or equipment.
	Periphery of class activity: Being on the edge of class and/or group tasks and not central to the activity, revealing an uncertainty or delay in committing to an activity or opinion.	Periphery of class activity: Being on the edge of class and/or group tasks and not central to the activity, revealing an uncertainty or delay in committing to an activity or opinion.	Pupil flitting between activities or groups:	pupil not committing to one task or group and moving between several.
			Pupil referencing peers:	Pupil observing and copying peers before they commit to actions or opinions. This is often observable by a delay in speaking or acting.
			Pupil hiding work contribution:	Pupil completing work but hiding this from others (eg leaning body over work, writing small, shutting book when others look).
	Motor:	Fidgeting:	Pupil makes repetitive small movements, often using hands and feet. Typically includes hair	

<b>Unusual behaviours:</b> <i>Any noticeable unusual behaviours, including (but not limited to) sensory, motor and vocal behaviour.</i>	Unusual, non-functional or repetitive motor behaviours.		twirling, nail biting, fidget toys and pen chewing but any other repetitive small movement should be coded under other.
		Self-stimulatory movements:	Pupil makes larger repetitive movements often involving whole body. May include body rocking, tensing body and flapping hands.
		Unusual movements:	Pupil makes unusual and awkward movements, that are not developmentally expected for their age. These might include moving around fast, bumping into things and making large (over the top) movements.
	<b>Sensory:</b> Behaviours informed by sensory differences such as covering ears due to noise sensitivity.	Noise:	Pupil shows exaggerated sensory response to noise stimulus that presents differently to their peers. Their response may include covering ears during loud and unexpected noises, requesting noise reduced and avoiding noisy situations.
		Controlling Space:	Pupil attempts to control the physical space around them. This may include lining up separately from the class, leaving class early (or late) to avoid busy areas of school and sitting in specific seat chosen for its preferable situation (quiet/near door).
	<b>Vocal:</b> Any unusual speech production and vocal noises.	Vocal:	Unusual and often non-communicative vocal noises such as talking to self and repeating phrases (scripting) to self or others. Also includes unusual tone of voice, changing accents and speaking loud/quiet.
<b>Affect:</b> <i>Emotional state of young person</i>	<b>Positive:</b> Positive affect will include any emotional response that indicates an external (visible) behavioural indication of contentment.		Pupil will show contentment and satisfaction through their non-verbal behaviours including facial expressions (eg smiling), body language (looking alert, calm and engaged) and through their verbal contributions (eg 'I am enjoying this').
	<b>Neutral:</b> Where there is no clear emotion, either facial expressions cannot be seen or emotions are unclear.		Where the pupil shows no clear emotional state or the state cannot be confirmed as the pupil's non-verbal behaviours are positioned away from the coder (eg the pupil is leaning over their work) then a neutral code will be recorded.
	<b>Negative:</b> Negative affect will include any emotional response that indicates an external (visible) behavioural indication of distress.		Pupil will show emotional distress through their non-verbal behaviours including facial expressions (eg scowling) and body language (looking anxious, disengaged) as well as through verbal and behavioural responses (eg 'I am so bored!')
<b>Social communication:</b> <i>Success of social interactions of young people on the playground.</i>	<b>Pupil initiated communication:</b>	Pupil initiated interaction will be coded as successful (peer responds) or not successful (peer does not respond).	Where pupil initiates interaction with a peer, interaction will be coded successful presuming their peer responds within an appropriate time (no longer than 12 seconds). Where the pupil does not receive a response from their peer within the timeframe the interaction will be coded as missed.
	<b>Pupil responses to peer initiated communication:</b>	Peer initiated interaction will be coded as successful (pupil responds) or not successful (pupil does not respond).	Where peer initiates interaction with the pupil, interaction will be coded successful presuming the pupil responds within an appropriate time (no longer than 12 seconds). Where the pupil does not respond within the timeframe the interaction will be coded as missed.

Comments			1	2	3	4	5	6	7	8
			Fidgeting open and close book repeatedly. Sitting quietly.	Looking and listening. Hand up to answer – waving for attention. TA prompt to wait	Continued waving despite teacher moving on – TA prompts.	Working quietly – appears on task. Answered name on register	Repeated asking question re homework. Teacher ignoring. TA prompt to wait	TA guiding work. Group but M completing separate as no-one on table. Self talk	Listening then talking self quietly. TA reminder not 'to talk to self'.	Answer question. Kept talking giving more information and not following teacher prompts to stop. Peers laughing. TA prompt
Class Activity										
Whole class and group based activities	Teacher led activity	Pupil paying attention to teacher	×	×		×			×	
		Pupil not paying attention to teacher								×
		Pupil interrupting teacher		×	×		×			×
		Pupil disrupting teacher								
	Teacher asking questions	Pupil answers appropriately								
		Pupil answers, but not appropriately		×						×
		Pupil does not offer an answer								
	Teacher led instructions	Pupil successfully following instructions								
		Pupil following instructions with adult facilitation	×					×		
		Pupil not following instructions								
	Engagement with group work	Pupil leading group work								
		Pupil contributing to group work								
		Pupil observing group work								
		Pupil disengaged from group work								
		Pupil disrupting group work								
	TA support	TA support to complete work						×		
		Social interaction between TA and pupil	×							
		TA support to facilitate desired behaviour/interaction.		×	×		×		×	×
Individual work	Working individually	Pupil independently on task				×				
		Pupil requesting/waiting for help from teacher		×			×			
		Pupil off task - distracted								

Periphery of class activity	Periphery of activity	Pupil off task - disruptive								
		Pupil interacting with peers								
		Pupil flitting between activities or groups								
		Pupil referencing peers								
		Pupil hiding work contribution								

			1	2	3	4	5	6	7	8
Unusual behaviours:										
		Other: Blinking eyes	✗		✗			✗	✗	✗
Motor	Fidgeting	Twirling hair								
		Biting nails	✗							
		Fidget toys / stationery			✗	✗		✗		
		Doodling in book								
	Self-stimulatory	Flapping								
		Body rocking								✗
		Tensing body								
	Movements	Walking/running back and forth								
		Swinging on chair		✗					✗	✗
		Walking on toes								
		Over the top movements								
		Moving very fast								
		Bumping into things								
		Inappropriate hugging								
		Jostling								
		Curling body into self								
Sensory	Noise	Covering ears	✗							
		Avoiding noise								
	Space	First/last in queue	✗							
		Leaving class early/late								
Vocal	Vocal	Specific seat in class	✗	✗	✗	✗	✗	✗	✗	✗
		Self-talk						✗	✗	
		Scripting								
		Self-humming								
		Screaming								
		Loud voice volume	✗							✗

Emotional state:		1	2	3	4	5	6	7	8
Affect	Positive (eg appearing content and engaged)				✗		✗	✗	✗
	Neutral - No clear emotion	✗		✗					

	Negative (eg appearing distressed)		×			×			
--	------------------------------------	--	---	--	--	---	--	--	--

Social communication			1	2	3	4	5	6	7	8
Social communication	YP communication initiations	Successful - peer responded								×
		Missed – peer did not respond								
	YP responses to peer initiated communication	Successful - response								
		Missed – no response							×	×

## Appendix J – Sample of coded transcribed interviews: girl, parent and educator.

Sample of Summer interview	
Raw data	Initial codes
<p><b>Interviewer:</b> So you come over [resource base] for social skills and lunch?</p> <p><b>Summer:</b> Yeah.</p> <p><b>Interviewer:</b> Anything else?</p> <p><b>Summer:</b> Um, just to find some peace.</p> <p><b>Interviewer:</b> That's- that was gonna be my next question, so what's different? So what - what's different about the centre being in the resource base for you compared to being in the mainstream bit?</p> <p><b>Summer:</b> It's quiet.</p> <p><b>Interviewer:</b> So it's quiet?</p> <p><b>Summer:</b> There's only about 12 students out of 700.</p> <p><b>Interviewer:</b> Yeah. So it's a lot quieter over here.</p> <p><b>Summer:</b> Yeah... Um, it's more noisy in the centre actually.</p> <p><b>Interviewer:</b> Yeah its noisy? Is- is the way you act here different to in the main school do you think?</p> <p><b>Summer:</b> Yeah.</p> <p><b>Interviewer:</b> Yeah, how's it different?</p> <p><b>Summer:</b> 'Cause there's like, um, more people who understand you.</p> <p><b>Interviewer:</b> Oh, okay. So do you have, you know how you said you behave quite differently</p>	<p>Safe space</p> <p>Quieter and calmer</p> <p>Increased understanding in resource base</p>

<p>at home to at school, so what's that like as regards in the centre? Do you..</p> <p><b>Summer:</b> Yeah, but I'm different to the others in the centre 'cause they have lots of needs and don't know how to fit in, but I can more like be myself in the centre 'cause I can do my Lego without hiding it.</p> <p><b>Interviewer:</b> You don't have to hide things quite so much, oh okay. What about the main school?</p> <p><b>Summer:</b> A lot of the kids don't even know I have autism, I just try, like try to fit in.</p> <p><b>Interviewer:</b> Yeah. Perhaps they don't know what autism is, a lot of them?</p> <p><b>Summer:</b> When we did go through, like in the beginning of the year, uh, like in year seven, most of the kids- some of the kids found out that this one girl had autism, who didn't look it, and then they started, they started attacking her.</p>	<p>Rejection of other pupils due to their needs. Different interests and less need to hide them in base.</p> <p>Camouflaging more in mainstream</p> <p>Motivation for camouflaging, bullying. Vulnerability of being not different enough</p>
---	---

Sample of Holly parent interview	
Raw data	Initial codes
<p><b>Interviewer:</b> Okay, brilliant and what would you say were the biggest, um, strengths and also perhaps the biggest challenges that her autism brings?</p> <p><b>Holly's parent:</b> She's very sociable, which I think is her biggest strength and also I think that's her biggest challenge because she wants to have friends and she want to be in friendship groups, but it means that she will do things to be, um, what's the word? To be accepted.</p> <p><b>Interviewer:</b> Okay. So sort of to try and fit in?</p> <p><b>Holly's parent:</b> Yeah, she'll try fit in and she'll copy negative behaviours. She'll do things because that's how she thinks she needs to be for people to like her.</p>	<p>Desire to fit in with friends</p> <p>Camouflaging to fit in</p> <p>Consequences to camouflaging – copying negative behaviours</p>

<p><b>Interviewer:</b> Right.</p> <p><b>Holly's parent:</b> So whilst is a huge strength. I think it's also quite weakness of her. And just the general social understanding of things I think is her weakness.</p> <p><b>Interviewer:</b> Okay. So you sort of mentioned it already, but in terms of her friendships, what are friendships like?</p> <p><b>Holly's parent:</b> Since she started this school, her friendships are much better. She has a couple of close friends, mainly boys and what she classes as boyfriend.</p> <p><b>Interviewer:</b> Yes. She introduced me to him. [chuckles]</p> <p><b>Holly's parent:</b> And he's very, very sweet and he's very lovely. She seemed to have become part of a group of similar children I would say and I know they're in the mainstream, but they seem to be relatively similar and also quite nurturing.</p> <p><b>Interviewer:</b> Yeah.</p> <p><b>Holly's parent:</b> Something we've been very fortunate that she has brought this group of friends who seemed to support her and there's no issues really.</p> <p><b>Interviewer:</b> Okay. That's really, really good. Does she try to fit in with them, would you say?</p> <p><b>Holly's parent:</b> Yes she does. I notice things like her language changes. Say, little phrases that they say and even some respects sort of one of them jokes around saying Yah, Yah and she'll do that, but she does it in the same kind of tone and manner that they do.</p> <p><b>Interviewer:</b> Right, yes.</p> <p><b>Holly's parent:</b> So I noticed that she does seem to mimic, you can tell who she's been with</p>	<p>Friendships improved in resource base</p> <p>Compatible friendships with mainstream SEN pupils</p> <p>Imitating friend's phrases and tone</p> <p>Continuation of camouflaging at home</p>
--	--



<p>during the day because she'll sound slightly different when she comes home.</p> <p><b>Interviewer:</b> Oh, that's interesting, and does she have similar interests to the friends and-</p> <p><b>Holly's parent:</b> Not really no. Um, maybe because we're, we might be harsh. I don't know if that's the word, but she's not allowed to play things which have access to social media. So she's not allowed to ROBLOX and things like that.</p> <p><b>Interviewer:</b> Yeah.</p> <p><b>Holly's parent:</b> A lot of her friends play. There's a couple of them, she does play Minecraft and a couple of them play that. Um, she's into music, which again, a lot of them are. And I noticed that again, her music tastes have changed being influenced upon by her friends as well.</p> <p><b>Interviewer:</b> And does she try and hide interests that she's got?</p> <p><b>Holly's parent:</b> Yes, she loves My Little Pony, but she won't tell anyone that. She likes, what do they call it, the little ball Pox things, pick me up POCs.</p> <p><b>Interviewer:</b> Oh, I know what you mean. Yeah. [chuckles]</p> <p><b>Holly's parent:</b> She feels, she's recognising that that's not necessarily age appropriate.</p> <p><b>Interviewer:</b> Okay.</p> <p><b>Holly's parent:</b> So she won't talk about that with them because she's scared of having the mick taken from her, but she still like to play with them at home.</p> <p><b>Interviewer:</b> Okay. So she's presenting quite differently at home. Is there anything else that you'd say she hides from her friends or hides in school?</p>	<p>Adult guidance around social media</p> <p>Camouflaging interests to fit with peers</p> <p>Camouflaging immature interests</p> <p>Camouflaging to avoid being different. Maintaining immature interests at home.</p>
---	--

<p><b>Holly's parent:</b> No, she's quite an open book, she'll probably give you too much information and I don't necessarily think, no in some way she's to... so, while she hides things like that, but she, I have to remind her not to talk too much about personal things like personal things like her periods and things to people because she'll just spout out that she's got a period and then talk all about it. I try to remind her that actually, it's nice that she's not hiding it but equally might not be what she wants to talk about with friends.</p>	<p>Adult led strategies to camouflage</p>
---	---

Sample of Summer educator interview	
Raw data	Initial codes
<p><b>Summer educator:</b> Umm she can get a little bit, hoity-toity at times. I think being an 'adult' and bossy is her identity within the centre because she doesn't see herself having equivalent needs.</p> <p><b>Interviewer:</b> Yeah.</p> <p><b>Summer's educator:</b> Um, but, yes, she's got a very good sense of what's right and wrong now. And wants people to be doing the right thing. Um, and she just wouldn't have been able to do that-</p> <p><b>Interviewer:</b> yeah.</p> <p><b>Summer's educator:</b> -last year.</p> <p><b>Interviewer:</b> Yeah.</p> <p><b>Summer's educator:</b> Um, So how she manages it in class? I think it's a case, she- she's got a younger brother who's got autism as well.</p> <p><b>Interviewer:</b> She mentioned that, yeah.</p> <p><b>Summer's educator:</b> Um, severe autism.</p>	<p>Different needs, acting like an adult.</p> <p>Rules and routines</p>

<p><b>Interviewer:</b> Yeah, she said about that</p> <p><b>Summer's educator:</b> Absolutely. Yeah, absolutely. Um, yeah, they went to XX last year I think. Normally they wouldn't but it was the first time they took them both way together.</p> <p><b>Interviewer:</b> Right.</p> <p><b>Summer's educator:</b> And they normally wouldn't. Um, but they had to for holiday reasons or whatever and he just sat on the pavement and screamed the whole time.</p> <p><b>Interviewer:</b> Yeah that's difficult, isn't it? How was Summer with-</p> <p><b>Summer's educator:</b> She then found it very difficult as well, because people were looking for one, um, and the sensory needs for her that's all too much. She doesn't tend to spend an awful lot of time with her brother, she does not like her brother very much.</p> <p><b>Interviewer:</b> Yeah. Yeah.</p> <p><b>Summer's educator:</b> And-and I think that she tries to sometimes over-compensate because she sees him displaying it so badly if you like.</p> <p><b>Interviewer:</b> Mm-hmm.</p> <p><b>Summer's educator:</b> She doesn't want people to see her like that. So she tries to be more normal than normal. Does that make sense?</p> <p><b>Interviewer:</b> That's- that completely makes sense.</p> <p><b>Summer's educator:</b> Mm-hmm, I think that affects her view of autism and she sees similar needs in the centre, which she will, um she will, uh try to separate herself from and fit with what she thinks is normal.</p>	<p>Challenge of other individual's needs</p> <p>Difficult to camouflage due to brother needs. Challenge of sharing diagnosis but presenting differently.</p> <p>Rejection of 'being the same'</p> <p>More normal than normal – view of autism</p>
--	---

<p><b>Interviewer:</b> How does- in what way do you see that?</p> <p><b>Summer's educator:</b> Uh, she will avoid activities she thinks are 'too young' and can get frustrated that the other pupils play and, um, but then she becomes conflicted because she wants to join in so she will try to argue reasons that its okay, for instance with Lego she uses it in the centre because it can be used for therapy so feels okay.</p> <p><b>Interviewer:</b> Yeah, she was also talking quite a bit about how she's got various interests that she would have, say at home, that she wouldn't show anyone in the main school. How, umm what about the centre?</p> <p><b>Summer's educator:</b> Yeah, that she doesn't feel that she'll be judged, I guess.</p> <p><b>Interviewer:</b> And that seems to be a really key thing for her?</p> <p><b>Summer's educator:</b> Yeah, because she does Lego over here and she will quite happily sit in there with all the Lego on her own and do it. Um, because we found that when we got it out in there it caused too many arguments so we had to do a rota basis of doing it in there in twos.</p>	<p>Different interests – conflict in resource base but also safe space to reduce camouflaging.</p> <p>Differences between interests mainstream and resource base and home.</p>
--	--

## Appendix K – Qualitative credibility

Description of how the research fits within Yardley's (2000) quality criteria for qualitative research.

Commitment	<p>Commitment to the research has been shown throughout the process.</p> <ul style="list-style-type: none"> <li>• Commitment to this topic area developed from personal and professional experiences. These have been consistent throughout the EP training course and were the focus of a previous research project.</li> <li>• The researcher reviewed the literature and used this to inform the creation of individualised materials.</li> <li>• Conducted, transcribed and analysed all interview data.</li> <li>• Completed write up of report, incorporating research supervision feedback and reflections.</li> </ul>
Rigour	<p>Rigour has been shown by presenting all aspects of the data collection and analysis.</p> <ul style="list-style-type: none"> <li>• Rigour was supported by using inclusive methodologies throughout the semi-structured interviews, enabling the girls to participate and share their views equally.</li> <li>• Recognising the challenges of researching camouflaging and supporting this by multi-informant perspectives and qualitative methods, complemented by observations and background measures. This enabled triangulation of views, resulting in rich multi-layered understanding of camouflaging.</li> <li>• In addition, peer and supervisory reflection was utilised for review of codes and themes, checking for bias and clarity.</li> </ul>
Coherence and transparency	<p>Coherence was shown between the philosophical perspective, methodology and research questions. All were informed by a social constructionist approach, recognising that camouflaging is a complex concept, that is dependent on its interactions with others.</p> <p>Coherence on this perspective was reviewed throughout the research, aiming to provide a clear examination of autistic girls' camouflaging for the reader.</p> <p>Transparency has been demonstrated by presenting detailed information of each aspect of the data collection and analysis.</p> <p>Researcher reflexivity has included repeated reflections on the impact of the researcher beliefs, values, assumptions</p>

	and interactions on the research. As part of this reflexivity process, formal supervision has been completed regularly with both research supervisors. In addition, a research diary has been kept throughout the process, including researcher reflections, observations and thoughts around key decisions. Relevant research reflections have been included throughout the thesis.
Sensitivity to context	<p>An in-depth literature review was completed, aiming to present a balanced examination of the historical, theoretical and cultural context that influences autism in girls. This review informed many aspects of the exploratory materials used for data collection.</p> <p>In line with the social constructionist perspective, it was imperative to provide thorough information detailing the characteristics of individual participants and their school contexts. This enabled the reader to position the findings within their socio-cultural environment, and judge the transferability of the findings to different contexts.</p>

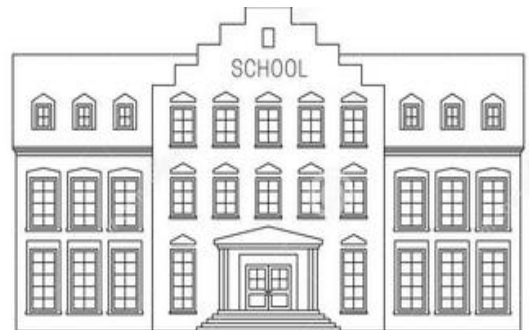
## Appendix L – Girls information and consent form

The girls' understanding of the project and consent was gained using a simplified visual consent form. This was designed by drawing on my training and experience as a trainee EP, through which I work to support children and young people, including those with autism, to share their views and experiences.

Hello

My name is Jo and I am a trainee educational psychologist. I work with young people in school and college.

I am doing a project about the skills young people use in school. I would like to invite you to be part of this by telling me about your experiences in school.



I have spoken to your parents and teachers about my project and now I would like to know if you would like to take part?

**What will happen if I help with the project?**

**x2**



If you would like to take part, then I will meet you two times at school.

The first time I will watch one of your school lessons and break times and I might talk to your teacher.

The second time we meet I will ask you to tell me about school and I might ask some questions. I might ask:

What is your favourite thing about school?



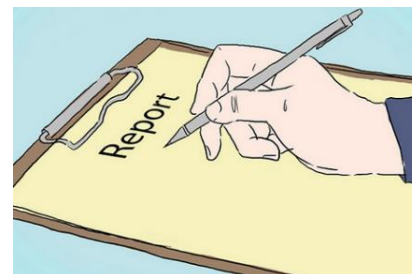
We might do some activities including drawing and choosing between different pictures.



Everything you say will be private. I will not use your name or school name in my project. The information I collect will be stored so only my supervisors (Dr Laura Crane and Dr Chris Clarke) and I can see them.

### **What happens to the results of the research?**

After I speak to lots of young people and their parents and teachers, I will write a report about what I have learnt.





## What should I do next?



Please talk to your parents and teachers about this project. If you would like to take part, there is a form to fill in on the next page. There are seven sentences for you to tick 'Yes' or 'No'.



You can change your mind at any time. If you no longer want to take part, then you can tell me or a teacher and we will stop straight away.



## Any questions?

If you have any questions, please contact me on the contact details provided.

This study has been approved by the Research Ethics Committee at UCL Institute of Education.

## Data Protection Privacy Notice:

Notice:



The data controller for this project will be University College London (UCL). The UCL Data Protection Office provides oversight of UCL activities involving the processing of personal data, and can be contacted at [data-protection@ucl.ac.uk](mailto:data-protection@ucl.ac.uk). UCL's Data Protection Officer can also be contacted at [data-protection@ucl.ac.uk](mailto:data-protection@ucl.ac.uk).

Further information on how UCL uses participant information can be found here: <https://www.ucl.ac.uk/legal-services/privacy/ucl-general-research-participant-privacy-notice>

The legal basis that would be used to process your personal data will be [performance of a task in the public interest.] The legal basis used to process special category personal data will be for scientific and historical research or statistical purposes/explicit consent.

Your personal data will be processed so long as it is required for the research project. If we are able to anonymise or pseudonymise the personal data you provide we will undertake this, and will endeavour to minimise the processing of personal data wherever possible. If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at [data-protection@ucl.ac.uk](mailto:data-protection@ucl.ac.uk)

## Consent form for interviews

<i>Please read the sentences and tick 'yes' or 'no' for each one:</i>	Yes 	No 
I have read the information about this project and I would like to take part.		
I understand I can stop at any time.		
I understand that everything I say in this project will be private and my name will not be used.		
I agree that any data collected will be processed and stored in line with General Data Protection Regulations (this means it will be kept safely).		
I understand that if at any time I have questions about this project I can contact Jo Halsall		
I would like to read about this project when it is finished.		
I am happy for my interview to be recorded so Jo can write it down.		

I agree to having a discussion with Jo Halsall:



Print:

Signed:

X

X



**Title of project: Coping skills in resource provisions for females with autism: perspectives of girls, their parents and their educators.**

You are invited to take part in a study that aims to explore the coping skills that girls with an autism diagnosis use within specialist resource provisions. This study is being completed as part of Jo Halsall's Educational Psychology doctorate, supervised by Dr Laura Crane and Dr Chris Clarke.

It is important for you to have a clear understanding of why this research is being done and what it will involve before you decide whether you would like to take part. The female pupil and parents will also receive some information to explain the study, please discuss this with them. Please ask the researcher if you have any questions.

**What is the purpose of this study?**

This study aims to explore the coping skills that girls with autism use within their specialist resource provision. We are interested in your experiences of the different skills this pupil uses to manage the expectations of school. The information gathered in this study will help develop understanding of how educational psychologists and school staff can best support girls with autism who attend specialist resource provisions, and the motivations and impacts of using these adaptive coping skills.

**What would happen if I take part?**

If you take part then I will arrange a convenient time for us to have an informal discussion, either by telephone, or in person, depending on which you prefer. During this discussion I will ask some questions around the pupil's experiences at school, but there will also be lots of opportunity for you to talk about the things that seem most important to you. The discussion will take around 30 minutes.

At any stage during, or after the discussion you can choose to pause or withdraw from the study. You do not need to give a reason for withdrawing and there will be no repercussions for withdrawing at any stage.

### **Other aspects of the study:**

Alongside our discussion, there are three parts to this study. These will be discussed and agreed with the other participants.

- I will visit school and complete a short observation of the pupil in class.
- I will spend time with the pupil, completing an informal discussion that will be supported by creative activities including drawing and sorting.
- I will have an informal discussion with the pupil's parent.

### **Do I have to take part?**

Taking part in this study is entirely voluntary and you do not need to give a reason for not taking part.

### **Would my taking part in the study be kept confidential?**

All participation will be anonymised. All information provided by participants will remain confidential and will be securely stored on password protected computers. When the study finishes in September 2020, we will keep your data in an anonymous format, unless you ask us to delete it.

The findings of this research may be published in academic journals and presented at conferences. Responses will be published in a group format and no individual responses will be reported. Data will be stored following the General Data Protection Regulations.

### **Data Protection Privacy Notice:**

The data controller for this project will be University College London (UCL). The UCL Data Protection Office provides oversight of UCL activities involving the processing of personal data, and can be contacted at:

[data-protection@ucl.ac.uk](mailto:data-protection@ucl.ac.uk) UCL's Data Protection Officer can also be contacted at [data-protection@ucl.ac.uk](mailto:data-protection@ucl.ac.uk)

Further information on how UCL uses participant information can be found here: [www.ucl.ac.uk/legal-services/privacy/participants-health-and-care-research-privacy-notice](http://www.ucl.ac.uk/legal-services/privacy/participants-health-and-care-research-privacy-notice)

The legal basis that would be used to process your personal data will be performance of a task in the public interest. The legal basis used to process special category personal data will be for scientific and historical research or statistical purposes/explicit consent.

If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at [data-protection@ucl.ac.uk](mailto:data-protection@ucl.ac.uk)

### **What should I do next?**

On the next page there is a set of statements for you to consider if you decide to take part. Anyone who completes the consent form is still free to withdraw at any time and without giving a reason.

### **Who is organising the research?**

I am a trainee in Educational Psychology at UCL Institute of Education. Please contact me if you would like any further information, at any time during the project.

This research will be jointly supervised by Dr Laura Crane and Dr Chris Clarke. They can be contacted at:

--	--

This study has been approved by the Research Ethics Committee at the UCL Institute of Education, University College London.

## Consent form

Before we start the interview, I would like to gather your consent so that I know you are happy to take part in my study.

The interview will be around 30 minutes long.

<i>Please indicate whether you agree with the following statements or not:</i>	Yes	No
I confirm that I have read the information sheet about this project and I am happy to participate.		
I understand that my participation is voluntary and I am free to stop at any time and without giving any reason.		
I understand that all information will be confidential and that my name and personal details, and the name and personal details of my school and pupils will not be included in reports or publications.		
I agree that any data collected will be processed and stored in line with General Data Protection Regulations.		
I understand that if at any time I have questions about this project I can contact Jo Halsall.		
I would like to receive the results of the research once it has been completed.		
I am happy for my interview to be audio recorded, if applicable (to be transcribed and then destroyed)		

I agree to having a discussion with Jo Halsall:

Print:  <div style="text-align: center; font-size: 2em; font-weight: bold;">X</div> <hr style="border: 0; border-top: 1px solid black; margin-top: 5px;"/>	Signed:  <div style="text-align: center; font-size: 2em; font-weight: bold;">X</div> <hr style="border: 0; border-top: 1px solid black; margin-top: 5px;"/>
--	---



**Title of project: Coping skills in specialist schools for females with ASC: perspectives of girls, their parents and their educators.**

You and your daughter are invited to take part in a study that aims to explore the coping skills that girls with an autism diagnosis use within specialist schools. This study is being completed as part of Jo Halsall's Educational Psychology doctorate, supervised by Dr Laura Crane and Dr Chris Clarke.

It is important for you to have a clear understanding of why this research is being done and what it will involve before you decide whether you would like to take part. Your daughter will also receive some information to explain the study, please discuss this with them. Please ask the researcher if you have any questions.

**What is the purpose of this study?**

This study aims to explore the coping skills that girls with autism use within their specialist schools, to manage everyday life. We are interested in your experiences of the different skills your daughter uses to manage the expectations of school and home. The information gathered in this study will help develop understanding of how educational psychologists and specialist school staff can best support girls and their families through their schooling.

**What would happen if I take part?**

If you take part then I will arrange a convenient time for us to have an informal discussion, either by telephone, or in person, depending on which you prefer. During this discussion I will ask some questions around your daughter's experiences at school and home, but there will also be lots of opportunity for you to talk about the things that seem most important to you. The discussion will take around 30 minutes.



At any stage during, or after the discussion you can choose to pause or withdraw from the study. You do not need to give a reason for withdrawing and there will be no repercussions for withdrawing at any stage.

### **Other aspects of the study:**

Alongside our discussion, there are three parts to this study. These will take be discussed with all participants and are expected to take place in school hours.

- I will visit your daughter's school and complete a short observation of her in class.
- I will spend time with your daughter, asking her some questions that will be supported by creative activities including drawing and sorting.
- I will have a discussion with a member of staff at your daughter's school.

### **Do I have to take part?**

Taking part in this study is entirely voluntary and you do not need to give a reason for not taking part.

### **Would my taking part in the study be kept confidential?**

All information collected as part of this research will be anonymised. All information provided will remain confidential and will be securely stored on password protected computers. When the study finishes in September 2020, we will keep your data in an anonymous format, unless you ask us to delete it.

The findings of this research may be published in academic journals and presented at conferences. Responses will be published in a group format and no individual responses will be reported. Data will be stored following the General Data Protection Regulations.

### **Data Protection Privacy Notice:**

The data controller for this project will be University College London (UCL). The UCL Data Protection Office provides oversight of UCL activities involving the processing of personal data, and can be contacted at:

[data-protection@ucl.ac.uk](mailto:data-protection@ucl.ac.uk) UCL's Data Protection Officer can also be contacted at [data-protection@ucl.ac.uk](mailto:data-protection@ucl.ac.uk)

Further information on how UCL uses participant information can be found here: [www.ucl.ac.uk/legal-services/privacy/participants-health-and-care-research-privacy-notice](http://www.ucl.ac.uk/legal-services/privacy/participants-health-and-care-research-privacy-notice)

The legal basis that would be used to process your personal data will be performance of a task in the public interest.] The legal basis used to process special category personal data will be for scientific and historical research or statistical purposes/explicit consent.

If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at [data-protection@ucl.ac.uk](mailto:data-protection@ucl.ac.uk)

### **What should I do next?**

On the next page there is a set of statements for you to consider if you decide to take part. Anyone who completes the consent form is still free to withdraw at any time and without giving a reason.

### **Who is organising the research?**

I am a trainee in Educational Psychology at UCL Institute of Education. Please contact me if you would like any further information, at any time during the project.

This research will be jointly supervised by Dr Laura Crane and Dr Chris Clarke. They can be contacted at:

This study has been approved by the Research Ethics Committee at the UCL Institute of Education, University College London.

## Consent form

Before we start the interview, I would like to gather your consent so that I know you are happy for both you and your daughter to take part in my study.

The interview will around 30 minutes long.

<i>Please indicate whether you agree with the following statements or not:</i>	Yes	No
I confirm that I have read the information sheet about this project and I am happy to participate.		
I confirm that I have read the information sheet about this project and I am happy for my daughter to participate		
I understand that both my and my daughter's participation is voluntary and we are both free to stop at any time and without giving any reason.		
I understand that all information will be confidential and that my name and personal details and my daughter's name and personal details will not be included in reports or publications.		
I agree that any data collected will be processed and stored in line with General Data Protection Regulations.		
I understand that if at any time I have questions about this project I can contact Jo Halsall.		
I would like to receive the results of the research once it has been completed.		
I am happy for both my interview and my daughter's interview to be audio recorded, if applicable (to be transcribed and then destroyed)		

I agree to having a discussion with Jo Halsall:

Print:  <div style="text-align: center; font-size: 2em;">X</div> <hr/>	Signed:  <div style="text-align: center; font-size: 2em;">X</div> <hr/>
--	---

## Appendix O – Ethical considerations

### Doctoral Student Ethics Application Form

Anyone conducting research under the auspices of the Institute (staff, students or visitors) where the research involves human participants or the use of data collected from human participants, is required to gain ethical approval before starting. This includes preliminary and pilot studies. Please answer all relevant questions in simple terms that can be understood by a lay person and note that your form may be returned if incomplete.

#### **\*Registering your study with the UCL Data Protection Officer as part of the UCL Research Ethics Review Process**

If you are proposing to collect personal data i.e. data from which a living individual can be identified, **you must be registered with the UCL Data Protection Office before you submit your ethics application for review.**

If the Data Protection Office advises you to make changes to the way in which you propose to collect and store the data, this should be reflected in your ethics application form.

For further information see Steps 1 and 2 of our Procedures page at:

<https://ethics.grad.ucl.ac.uk/procedures.php>

Section 1 Project details		
a.	Project title	<b>Adaptive coping skills in specialist schools for females with ASC: perspectives of girls, their parents and their educators.</b>
b.	Student name and ID number (e.g. ABC12345678)	Joanne Halsall – [REDACTED]
c.	*UCL Data Protection Registration Number	No Z6364106/2019/01/111 Date issued
c.	Supervisor/Personal Tutor	Laura Crane
d.	Department	Psychology and Human Development (PHD)
e.	Course category	PhD <input type="checkbox"/> EdD <input type="checkbox"/>

	(Tick one)	DEdPsy <input checked="" type="checkbox"/>	
f.	If applicable, state who the funder is and if funding has been confirmed.		N/A
g.	Intended research start date		01/12/18 (or as soon after this as ethics agreed)
h.	Intended research end date		31/08/20
i.	Country fieldwork will be conducted in  <i>If research to be conducted abroad please check <a href="http://www.fco.gov.uk">www.fco.gov.uk</a> and submit a completed travel risk assessment form (see guidelines). If the FCO advice is against travel this will be <b>required</b> before ethical approval can be granted: <a href="http://ioe-net.inst.ioe.ac.uk/about/profservices/international/Pages/default.aspx">http://ioe-net.inst.ioe.ac.uk/about/profservices/international/Pages/default.aspx</a></i>		UK
j.	Has this project been considered by another (external) Research Ethics Committee?		
	Yes <input type="checkbox"/>	External Committee Name:	
	No <input checked="" type="checkbox"/> ⇒ go to Section 2	Date of Approval:	
<b>If yes:</b> <ul style="list-style-type: none"> <li>– Submit a copy of the approval letter with this application.</li> <li>– Proceed to Section 10 Attachments.</li> </ul>			
<b>Note:</b> Ensure that you check the guidelines carefully as research with some participants will require ethical approval from a different ethics committee such as the <a href="#">National Research Ethics Service</a> (NRES) or <a href="#">Social Care Research Ethics Committee</a> (SCREC). In addition, if your research is based in another institution then you may be required to apply to their research ethics committee.			

## Section 2 Research methods summary (tick all that apply)

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Interviews<br><input checked="" type="checkbox"/> Focus groups<br><input checked="" type="checkbox"/> Questionnaires<br><input type="checkbox"/> Action research<br><input checked="" type="checkbox"/> Observation<br><input checked="" type="checkbox"/> Literature review | <input type="checkbox"/> Controlled trial/other intervention study<br><input type="checkbox"/> Use of personal records<br><input type="checkbox"/> Systematic review ⇒ <i>if only method used go to Section 5.</i><br><input type="checkbox"/> Secondary data analysis ⇒ <i>if secondary analysis used go to Section 6.</i><br><input type="checkbox"/> Advisory/consultation/collaborative groups<br><input type="checkbox"/> Other, give details: |
|--|---|

Please provide an overview of the project, focusing on your methodology. This should include some or all of the following: purpose of the research, aims, main research questions, research design, participants, sampling, data collection (including justifications for methods chosen and

description of topics/questions to be asked), reporting and dissemination. Please focus on your methodology; the theory, policy, or literary background of your work can be provided in an attached document (i.e. a full research proposal or case for support document). *Minimum 150 words required.*

The purpose of this study is to explore if and how adolescent females with Autism Spectrum Condition (ASC) use adaptive coping strategies, particularly camouflaging, to navigate the social experience of education in specialist secondary schools, including specialist resource bases attached to mainstream schools.

Females with ASC are more likely to be identified and diagnosed later, more likely to be misdiagnosed and receive less targeted support and interventions in school (Begeer et al, 2013; Wilkinson, 2008; Dean et al, 2014). They are also suggested to have poorer outcomes than males. There is minimal research that focuses on the adaptive coping skills used by females with ASC, the limited research into this area suggests that early feminine advantage in social communication and interaction, enables females with ASC to develop adaptive coping skills, which mask their difficulties and allow them to blend in with their peers (Cook, Ogden and Winstone, 2017). Yet there has been very little work on females with ASC in specialist school provisions, and the motivations and consequences of such behaviours in these settings. Research by Pellicano et al. (2014) highlights the importance of individuals with ASC participating meaningfully in research, and identifies research that focuses on improving everyday life outcomes for individuals with ASC, especially females, is a priority area. As such, this is a crucially important area of research.

The main research questions are:

RQ1: Do females with ASC use adaptive coping skills within specialist schools?

RQ2: What are the motivations for using adaptive coping skills in specialist school?

RQ3: What are the consequences of adaptive coping skills within specialist schools?

RQ4: What are teachers' experiences and understanding of females with ASC using adaptive coping skills in school?

RSQ5: From the perspective of parents, do the adaptive coping skills females with ASC use, present differently at home and specialist school?

Methodology:

This will be a qualitative study design. Purposive sampling will be used to identify female participants who have a diagnosis of ASC, are aged between 11-18 years and have experience of specialist schooling in the UK. One of their parents and one of their teachers will be asked to share their views. A total of 6-8 triads will be interviewed across at least two specialist schools, which may include specialist resource bases attached to mainstream schools. Participants will be recruited via two methods, the first will involve direct contact to senior staff at specialist schools throughout London and South East of England. The second will involve research information being sent to ASC groups and databases, such as the National Autistic Society, CRAE (Centre for Research in Autism and Education) and Autism Hampshire. This information

will be aimed towards females and their parents, who will then be asked to invite a teacher at their daughter's school to participate in the study.

I will initially meet with the girls (and if they would like a teacher or parent) to explain my project and confirm that they would like to participate. During this meeting I will read through the information and consent form with the girls and answer any questions before they sign consent. I will explain that I will come to visit their school and watch one of their lessons and one of their break/lunchtimes, before we complete our interview.

I will use school-based observations to build rapport and to gain an understanding of the girls' social behaviour within the school setting. Two 30 minute observations will be conducted (one during lesson and the other during break/lunchtime), during which I will code adaptive coping behaviours, focusing on the skills the girls use to navigate the learning and social environment of school.

These observations will also provide further information of the school environment and develop familiarity with the young person before the semi-structured interview. The variety and quantity of adaptive coping behaviours will be analysed and these snapshots of behaviour will be triangulated with the qualitative data.

I will use semi-structured interviews to elicit the young person, parent and educators' views. Interview schedules will be developed after consulting current literature (see attached draft) and include questionnaire measures exploring social communication, behaviour and learning. Before starting the interviews, I will explain the purpose of the study, answer any questions and ask participants to read the information form, before signing the consent form.

The qualitative data gathered from the interviews will be analysed using thematic analysis informed by Braun and Clarke's (2006) method. All data will be pseudo-anonymised. Due to the exploratory nature of this research, themes will be primarily drawn from inductive methods, while utilising deductive approaches drawn from wider theory that consider the adaptive skills used by females with ASC. The robustness of this study will be supported by triangulating results from multiple informants, within several different schools.

Accessing the voices of females with ASC within specialist provisions, presents methodological and ethical challenges. Due to their ASC and likelihood of co-existing learning difficulties, the concept of adaptive coping skills may be complex and difficult to access for the females. They may also find in-depth interviews that rely on social communication skills challenging to express their experiences. Participatory approaches, which support the participant's communication needs and preferences will be used throughout the pupil interviews, using creative methods to develop rapport, support understanding and elicit their views.

An important aspect of ethical research is ensuring informed consent. This poses additional challenges for vulnerable groups, such as individuals who have social communication and learning difficulties. Informed consent will be assisted by including simple and clear consent forms, which are supported by visual prompts. Consent will be initially sought from school and parents, before pupils are approached, and all standard ethical expectations for psychological research (e.g. right to withdraw, anonymity) will be followed.

This research will be compiled as a thesis and research briefing, which will be disseminated to course tutors and placement Educational Psychology Service. The research will be formatted and submitted to a peer reviewed journal for wider dissemination.

### Section 3 Research Participants (tick all that apply)

- |   |  |
|---|--|
| <input type="checkbox"/> Early years/pre-school             | <input checked="" type="checkbox"/> Adults <i>please specify below</i> |
| <input checked="" type="checkbox"/> Ages 5-11               | <input type="checkbox"/> Unknown – specify below                       |
| <input checked="" type="checkbox"/> Ages 12-16              | <input type="checkbox"/> No participants                               |
| <input checked="" type="checkbox"/> Young people aged 17-18 |  |

**NB:** Ensure that you check the guidelines carefully as research with some participants will require ethical approval from a different ethics committee such as the [National Research Ethics Service](#) (NRES) or [Social Care Research Ethics Committee](#) (SCREC).

### Section 4 Security-sensitive material (only complete if applicable)

Security sensitive research includes: commissioned by the military; commissioned under an EU security call; involves the acquisition of security clearances; concerns terrorist or extreme groups.

a.	Will your project consider or encounter security-sensitive material?	Yes <input type="checkbox"/> *	No <input checked="" type="checkbox"/>
b.	Will you be visiting websites associated with extreme or terrorist organisations?	Yes <input type="checkbox"/> *	No <input checked="" type="checkbox"/>
c.	Will you be storing or transmitting any materials that could be interpreted as promoting or endorsing terrorist acts?	Yes <input type="checkbox"/> *	No <input checked="" type="checkbox"/>

\* Give further details in **Section 8 Ethical Issues**

### Section 5 Systematic reviews of research (only complete if applicable)

a.	Will you be collecting any new data from participants?	Yes <input checked="" type="checkbox"/> *	No <input type="checkbox"/>
b.	Will you be analysing any secondary data?	Yes <input type="checkbox"/> *	No <input checked="" type="checkbox"/>

\* Give further details in **Section 8 Ethical Issues**

*If your methods do not involve engagement with participants (e.g. systematic review, literature review) **and** if you have answered **No** to both questions, please go to **Section 8 Attachments**.*

### Section 6 Secondary data analysis (only complete if applicable)

a.	Name of dataset/s	
----	-------------------	--



b.	Owner of dataset/s		
c.	Are the data in the public domain?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
		<i>If no, do you have the owner's permission/license?</i>	
		Yes <input type="checkbox"/>	No* <input type="checkbox"/>
d.	Are the data anonymised?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
		<i>Do you plan to anonymise the data?</i> Yes <input type="checkbox"/> No* <input type="checkbox"/>	
		<i>Do you plan to use individual level data?</i> Yes* <input type="checkbox"/> No <input type="checkbox"/>	
		<i>Will you be linking data to individuals?</i> Yes* <input type="checkbox"/> No <input type="checkbox"/>	
e.	Are the data sensitive ( <a href="#">DPA 1998 definition</a> )?	Yes* <input type="checkbox"/>	No <input type="checkbox"/>
f.	Will you be conducting analysis within the remit it was originally collected for?	Yes <input type="checkbox"/>	No* <input type="checkbox"/>
g.	<b>If no</b> , was consent gained from participants for subsequent/future analysis?	Yes <input type="checkbox"/>	No* <input type="checkbox"/>
h.	<b>If no</b> , was data collected prior to ethics approval process?	Yes <input type="checkbox"/>	No* <input type="checkbox"/>

*\* Give further details in **Section 8 Ethical Issues***

*If secondary analysis is only method used **and** no answers with asterisks are ticked, go to **Section 9 Attachments**.*

## Section 7 Data Storage and Security

*Please ensure that you include all hard and electronic data when completing this section.*

a.	<b>Data subjects</b> - Who will the data be collected from? Females pupils (between 11-18 years) who have a diagnosis of ASC, their parents and their teachers.
b.	<p><b>What data will be collected?</b> Please provide details of the type of personal data to be collected:</p> <p>Interview data will be recorded and transcribed. Drawings and sorting activities completed by the female pupils will be photographed. All data will be pseudo-anonymized.</p>
c.	<p><b>Disclosure</b> – Who will the results of your project be disclosed to?</p> <p>Pseudo-anonymised results will be disclosed to university and professional placements, as well as prepared for publishing in a peer reviewed journal.</p>

d.	<p><b>Data storage</b> – Please provide details on how and where the data will be stored i.e. UCL network, encrypted USB stick*, encrypted laptop* etc.</p> <p>Data will be securely stored electronically on my personal laptop which is password protected and not used by anyone else. All files will be password protected. The paper based consent forms will be securely locked away in my home office. A mobile device will be used to record the interviews, but there will be no personal names saved on these recordings. These interviews will be transferred over to my password protected computer as soon as possible following the interviews. My supervisor will have a copy of the transcribed data, and this will be stored securely.</p> <p>*Advanced Encryption Standard 256 bit encryption which has been made a security standard within the NHS</p>	
e.	<p><b>Data Safe Haven (Identifiable Data Handling Solution)</b> – Will the personal identifiable data collected and processed as part of this research be stored in the UCL Data Safe Haven (mainly used by SLMS divisions, institutes and departments)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
f.	<p>How long will the data and records be kept for and in what format?</p> <p>The anonymous data from the transcripts will be stored in a file called transcript data, this will all be anonymous and password protected. I hope to publish this research following completion and therefore results will be saved until 09/2028.</p> <p>Will personal data be processed or be sent outside the European Economic Area? (If yes, please confirm that there are adequate levels of protections in compliance with the DPA 1998 and state what these arrangements are: No.</p> <p>Will data be archived for use by other researchers? (If yes, please provide details.) No.</p>	

## Section 8 Ethical issues

Please state clearly the ethical issues which may arise in the course of this research and how will they be addressed.

**All** issues that may apply should be addressed. Some examples are given below, further information can be found in the guidelines. *Minimum 150 words required.*

<ul style="list-style-type: none"> <li>– Methods</li> <li>– Sampling</li> <li>– Recruitment</li> <li>– Gatekeepers</li> <li>– Informed consent</li> <li>– Potentially vulnerable participants</li> <li>– Safeguarding/child protection</li> <li>– Sensitive topics</li> </ul>	<ul style="list-style-type: none"> <li>– International research</li> <li>– Risks to participants and/or researchers</li> <li>– Confidentiality/Anonymity</li> <li>– Disclosures/limits to confidentiality</li> <li>– Data storage and security both during and after the research (including transfer, sharing, encryption, protection)</li> <li>– Reporting</li> </ul>
---	---

- Dissemination and use of findings

### **Methods – Participants and recruitment:**

I intend to collect data from female pupils (between 11-18 years) who have a diagnosis of Autism Spectrum Disorder and attend specialist schooling, alongside one of their parents and one of their educators. The research will use an opt-In approach, which means that if any party does not opt-in then data will not be collected for that young person. Initial contact will be made either through senior school staff (SENCO/Headteacher), or via the females' parents (promoted through local support groups and charities) who will then be invited to suggest a member of their daughter's school staff to participate. An information sheet will be forwarded to specialist schools and Educational Psychologists within my local service, as well as through supervisor links. Where schools are interested, I will arrange to discuss the project in more detail before they discuss any pupils' involvement with their parents and then directly with the pupil. I have a current enhanced DBS and work with teachers, parents and children/young people as part of my everyday educational psychology role. Through this I have significant training and expertise working with young people with ASC, and am experienced in supporting them to share their views in a safe and contained way.

The research will include two stages. Stage one will be observation of the pupil in school. Consent for the observation will be sought beforehand, during which I will explain that I am interested in seeing how young people learn and spend time in school. The observations will support understanding of the overall structure of the learning environment and will build familiarity between myself and the pupil, before we complete individual interviews. I will record observed behaviour on an anonymous behaviour coding document, which will be password protected.

The second stage of the research will include separate semi-structured interviews with the female pupil, one of her parents and one of her educators. The pupil interviews will be supported by a range of approaches that aim to reduce the reliance on social communication. These may include: building their 'Ideal School' out of Lego, drawing and sorting activities or using the Mosaic approach to visually depict aspects of their school life.

Parent and teacher will participate in separate semi-structured interviews discussing adaptive coping skills at school and home.

### **Informed consent:**

All participants will give written informed consent prior to any data collection and due to their vulnerability, consent will be reconfirmed before both the observation and the individual interview with the pupil. For the female pupils with ASC, ensuring consent is informed is more challenging, due to their social communication and possible learning difficulties. Informed consent will be assisted by including simple and clear consent forms (attached), which are supported by visual prompts. Consent will be initially sought from school and parents, before pupils are approached. All standard ethical expectations for psychological research, such as the right to withdraw and anonymity will be clearly explained with visual prompts to support understanding. If there is any

uncertainty around the pupils understanding and consent, support will be requested from a school staff member (who knows the pupil well) before continuing.

#### **Safeguarding/child protection:**

The researcher will request information of the designated safeguarding officer within each school, prior to beginning any data collection. The researcher has extensive training in safeguarding through her professional role as a trainee educational psychologist. If there are any concerns, these will immediately be escalated via the school safeguarding procedures and the research supervisor will be informed.

#### **Sensitive topics and risks to participants and researcher:**

Teachers could experience some discomfort when asked about their awareness of adaptive coping skills for female pupils with ASC. This will be limited by clear communication around the anonymity of their answers and reminding them that they can withdraw at any time. Also clearly outlining the value of their contribution to the study.

The semi-structured interviews may touch on sensitive issues for parents. Depending on their experiences, they could experience anxiety and distress when considering the adaptive coping skills their daughters use, particularly when considering the consequences of these. The emotional response will be monitored throughout and all participants will be reminded that their views will be pseudo-anonymised and that they can discontinue the interview at any stage. Any distinctive identifying information will be removed. All participants will receive debrief information and if anyone appears distressed either during or after the interview, they will be immediately guided towards identified support within school.

The pupils may find the concept of adaptive coping skills complex and difficult to access. They may also find in-depth interviews that rely on social communication skills challenging to express their experiences. Participatory approaches, which support their communication needs and preferences will be used throughout the pupil interviews, using creative methods such as drawing to develop rapport, support understanding and elicit the pupil voice.

The semi-structured interviews focus on potentially sensitive areas including friendships, coping skills and the impact of these, and there is the possibility that participants may become anxious or upset when discussing this. Participants wellbeing is the primary focus, and if participants show any distress the interview will be immediately concluded and support accessed from school staff or parents. To support their comfort and wellbeing, females will be given the option to share their interview with a member of school staff or their parent, according to preference.

The interviews may present emotionally distressing information for the researcher. In this situation support will be accessed through supervision

#### **Confidentiality, anonymity and limits to this:**

Confidentiality, including anonymity will be explained to all participants prior to informed consent and data collection. Data will be kept confidential, unless there is a risk to the participant or someone else. It is not expected that the interviews are likely to result in information being divulged that needs to be shared, however in this situation, the school confidentiality and safeguarding procedures will be followed and my supervisor will be informed.

#### **Data storage and security:**

There are risks to data storage and security during the research, as the data will be accessed by laptop. This will be supported by ensuring all data is password protected and pseudo-anonymised. Audio data will be transferred to my password protected laptop as soon as possible following

interviews. Paper consent forms will be collated and locked away within my personal office. Password protected transcript data will be securely shared with my supervisor.

### Reporting/Dissemination of findings:

This research aims to explore the adaptive coping skills of females with ASC in specialist schools. Gaining a clearer view of the skills they use and the consequences of these skills will increase understanding of how best to support these pupils within specialist school settings.

All findings will be pseudo-anonymised and quotes that identify participants (due to specificity of circumstances) will be excluded. The overall findings will be shared with participants, their parents and schools and this will include a research briefing that is designed to be accessible to all.

## Section 9 Attachments Please attach the following items to this form, or explain if not attached

a.	Information sheets, consent forms and other materials to be used to inform potential participants about the research ( <i>List attachments below</i> )	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Parent information sheet and consent form, Teacher information sheet and consent form, Pupil information sheet and consent form, Interview schedules for pupils, parents and teachers, Observation schedule (playground and lesson)			
	<b><i>If applicable/appropriate:</i></b>		
b.	Approval letter from external Research Ethics Committee	<input type="checkbox"/>	Yes
c.	The proposal ('case for support') for the project	<input type="checkbox"/>	Yes
d.	Full risk assessment	<input type="checkbox"/>	Yes

## Section 10 Declaration

I confirm that to the best of my knowledge the information in this form is correct and that this is a full description of the ethical issues that may arise in the course of this project.

I have discussed the ethical issues relating to my research with my supervisor. ☒

☐

I have attended the appropriate ethics training provided by my course. ☒

☐

**I confirm that to the best of my knowledge:**

The above information is correct and that this is a full description of the ethics issues that may arise in the course of this project.

Name	Joanne Halsall
------	----------------

Date	01/12/2018
------	------------

**Please submit your completed ethics forms to your supervisor for review.**

## Notes and references

### Professional code of ethics

You should read and understand relevant ethics guidelines, for example:

[British Psychological Society](#) (2009) *Code of Ethics and Conduct*, and (2014) *Code of Human Research Ethics* or [British Educational Research Association](#) (2011) *Ethical Guidelines* or [British Sociological Association](#) (2002) *Statement of Ethical Practice*

Please see the respective websites for these or later versions; direct links to the latest versions are available on the Institute of Education <http://www.ioe.ac.uk/ethics/>.

### Disclosure and Barring Service checks

If you are planning to carry out research in regulated Education environments such as Schools, or if your research will bring you into contact with children and young people (under the age of 18), you will need to have a Disclosure and Barring Service (DBS) CHECK, before you start. The DBS was previously known as the Criminal Records Bureau (CRB). If you do not already hold a current DBS check, and have not registered with the DBS update service, you will need to obtain one through at IOE. Further information can be found at [http://www.ioe.ac.uk/studentInformation/documents/DBS\\_Guidance\\_1415.pdf](http://www.ioe.ac.uk/studentInformation/documents/DBS_Guidance_1415.pdf)

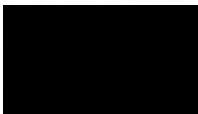
Ensure that you apply for the DBS check in plenty of time as will take around 4 weeks, though can take longer depending on the circumstances.

## Departmental use

If a project raises particularly challenging ethics issues, or a more detailed review would be appropriate, the supervisor **must** refer the application to the Research Ethics and Governance Coordinator (via [ioe.researchethics@ucl.ac.uk](mailto:ioe.researchethics@ucl.ac.uk)) so that it can be submitted to the Research Ethics Committee for consideration. A departmental research ethics coordinator or representative can advise you, either to support your review process, or help decide whether an application should be referred to the REC.

Also see 'when to pass a student ethics review up to the Research Ethics Committee': <http://www.ioe.ac.uk/about/policiesProcedures/42253.html>

Student name	
--------------	--

Student department	
Course	
Project title	
<b>Reviewer 1</b>	
Supervisor/first reviewer name	Laura Crane
Do you foresee any ethical difficulties with this research?	Jo has worked hard to consider the potential ethical implications of this work, and I am confident that – with her professional expertise and diligent approach to research – she will be able to address the key ethical considerations associated with this work.
Supervisor/first reviewer signature	
Date	21 November 2018
<b>Reviewer 2</b>	
Second reviewer name	
Do you foresee any ethical difficulties with this research?	
Supervisor/second reviewer signature	
Date	
<b>Decision on behalf of reviews</b>	
Decision	Approved <input type="checkbox"/>
	Approved subject to the following additional measures <input type="checkbox"/>
	Not approved for the reasons given below <input type="checkbox"/>
	Referred to REC for review <input type="checkbox"/>
Points to be noted by other reviewers and in report to REC	
Comments from reviewers for the applicant	