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UNIVERSITY OF SOUTHAMPTON

FACULTY OF SOCIAL, HUMAN AND MATHEMATICAL SCIENCES

School of Psychology

**Understanding the Experience of Social Anxiety in Adolescent Girls with
Autism Spectrum Disorders**

by

Leanne Mary Pickering

Thesis for the degree of Doctor of Educational Psychology

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ABSTRACT

FACULTY OF SOCIAL, HUMAN AND MATHEMATICAL SCIENCES

Doctorate in Educational Psychology

Thesis for the degree of Doctor of Educational Psychology

UNDERSTANDING THE EXPERIENCE OF SOCIAL ANXIETY IN ADOLESCENT GIRLS WITH AUTISM SPECTRUM DISORDERS

By Leanne Mary Pickering

Literature Review: Pathways to social anxiety often reflect a set of complex and interacting factors including intrinsic and environmental factors. Theoretical models of social anxiety have highlighted that children and adolescents' peer experiences can increase risk for social anxiety. This systematic review explored the role of peers in the development of social anxiety in adolescent girls. It aimed to identify peer-related risk factors (i.e., peer acceptance, peer attachment, friendship quality, peer support, and victimisation) that place adolescents at risk for social anxiety, including those specific to girls. The results showed that while some peer experiences were relevant to understanding risk across genders, others placed girls at increased risk. For example, low peer acceptance was significantly associated with increased social anxiety in boys and girls, both concurrently and over time. Those factors that placed girls at increased risk of social anxiety and avoidance, relative to boys, included limited close friendships, negative friendship experiences and relational victimisation. The review suggested that researchers might usefully start to develop frameworks that capture generic as well as gender-specific risk for social anxiety. These will facilitate the development of prevention and intervention methods to support girls at increased risk, that focus on improving the quality of their peer relationships.

Empirical Paper: The onset of adolescence represents an age where young people are at risk for the development of social anxiety. Increasingly, research has highlighted an increased risk of social anxiety in girls with Autism Spectrum Disorders (ASD). However, there remains a lack of understanding of their experiences and the extent to which they are consistent with current models of anxiety in ASD. This qualitative study aimed to develop

an understanding of the experience of social anxiety in adolescent girls with ASD from the perspective of young people themselves, their parents and teachers. Semi-structured interviews were conducted with four triads, with girls interviewed using an 'ideal classroom' activity to explore their perception of school-based social situations. Four interrelated themes emerged from the data across all four triads including (1) barriers to social situations, (2) quality of relationships, (3) coping with social situations, and (4) desire to 'fit in'. The results found that girls' experiences were underpinned by factors present in typical pathways to social anxiety (e.g. negative peer experiences and poor social skills) and that girls' sensory sensitivity to noise acted as an autism-specific pathway. Implications for professionals who work with adolescent girls diagnosed with ASD were discussed, including the delivery of targeted training and workshops to increase staff understanding and raise peer acceptance.

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DECLARATION OF AUTHORSHIP

I, LEANNE MARY PICKERING declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

Understanding the Experience of Social Anxiety in Adolescent Girls with Autism Spectrum Disorders

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission.

Signed:

Date:

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Definitions and Abbreviations

ABC	Attribution Bias Context
ADHD	Attention Deficit Hyperactivity Disorder
AI	Adolescent Interview
APA	American Psychiatric Association
ASD	Autism Spectrum Disorders
CAMHS	Child and Adolescent Mental Health Services
DSM	Diagnostic and Statistical Manual of Mental Disorders
EP	Educational Psychologist
ERGO	Ethics and Research Governance Online
FNE	Fear of Negative Evaluation
FQQ	Friendship Quality Questionnaire
ICD	International Classification of Diseases
ICQ	The Interpersonal Competence Questionnaire
IPA	Interpretative Phenomenological Analysis
IPPA	Inventory of Parent and Peer Attachment
IU	Intolerance of Uncertainty
LS	Loneliness Scale
LSA	Learning Support Assistant
MASC	Multidimensional Anxiety Scale for Children
<i>n</i>	Number of participants
NICE	National Institute for Health and Care Excellence
<i>p</i>	Probability (significance of a test statistic)

PRS	Parent Rating Scale of Child's Actual Behaviour
R-PEQ	Revised Peer Experiences Questionnaire
SAD	Social Anxiety Disorder
SAD-G	Social Avoidance and Distress - General
SAD-N	Social Avoidance and Distress - New
SAS-A	Social Anxiety Scale for Adolescents
SASC	Social Anxiety Scale for Children
SASC-R	Social Anxiety Scale for Children – Revised
SCARED-R	The Screen for Child Anxiety Related Emotional Disorders - Revised
SENCo	Special Educational Needs Coordinator
SEQ-S	Social Experience Questionnaire – Self-Report
SEQ-PR	Social Experience Questionnaire – Peer Report
SPAI-C	The Social Phobia and Anxiety Inventory for Children
SPIN	Social Phobia Inventory
SPPA	Self-perception Profile for Adolescents
SPPC	The Self-perception Profile for Children
SPSQ-C	Social Phobia Screening Questionnaire for Children and Adolescents
SSAS	Social Support Appraisals Scale
SSSC	The Social Support Scale for Children
SSSCA	The Social Support Scale for Children and Adolescents
T	Time
TA	Teaching Assistant
TEP	Trainee Educational Psychologist
UCLA	University of California, Los Angeles

UK	United Kingdom
USA	United States of America
WHO	World Health Organisation

Chapter 1: Literature Review

The Role of Peers in the Development of Social Anxiety in Adolescent Girls: A Systematic Literature Review

1.1 Introduction

Anxiety is a feeling of worry or fear that occurs in response to the anticipation of future threat (American Psychiatric Association; APA, 2013). Anxiety disorders are reported to be the most prevalent mental health need in the general population (Kessler et al., 2009), with worldwide prevalence rates estimated to be approximately 6.5% in children and adolescents (Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). In a survey of the mental health of UK children and adolescents, Green, McGinnity, Meltzer, Ford, and Goodman (2005) found that approximately 4% of adolescent boys and 5% of girls had a clinically recognised anxiety disorder. Researchers have found that individuals who experience a higher number of anxiety disorders during adolescence, are at increased risk of later anxiety disorders and educational underachievement (Woodward & Fergusson, 2001). Anxiety in adolescence has also been found to be strongly associated with adverse outcomes at age 30, with adolescent anxiety significantly predicting poor adjustment in adulthood, lower life satisfaction, poor coping skills and high chronic stress (Essau, Lewinsohn, Olaya, & Seeley, 2014); adolescent anxiety better predicts psychosocial outcomes in adulthood than childhood anxiety.

According to The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; APA, 2013), anxiety disorders are characterised by an excessive fear or anxiety, and related behavioural difficulties, which persist for at least six months. Although there is a high degree of comorbidity between anxiety disorders, it is suggested that they differ according to the type of situation that is feared or the underlying thoughts and beliefs. The DSM-5 outlines a range of different anxiety disorders including: specific phobia, a fear about a specific object or situation; generalized anxiety disorder, persistent and excessive worries across different domains; separation anxiety, a fear of separation from attachment figures; selective mutism, a persistent failure to speak in social situations; and social anxiety disorder, a fear about social situations.

1.1.1 Social anxiety

Although it is not uncommon for many people to experience social anxiety, particularly those with shy or inhibited temperaments, these feelings are often temporary or have minimal impact on daily life. When symptoms persist for an extended period of time and impair every day functioning, this profile can lead to a diagnosis of Social Anxiety Disorder (SAD; APA, 2013). Symptoms of SAD include worries or fear associated with social situations where there is a chance of “scrutiny” or being “negatively evaluated” by others, and where situations are “avoided or endured with intense fear or anxiety” (see APA, 2013, p.202). The diagnostic criteria note that children must experience social anxiety during their interactions with peers, as well as adults, with this difficulty typically lasting for at least six months. The persistent and intense fear of social situations is further disproportionate to the level of threat posed by the actual situation (APA, 2013; National Institute for Health and Care Excellence, 2013) and causes significant personal distress especially in social situations (e.g., meeting new people, speaking in public, eating in public, school attendance, working in groups and speaking in meetings).

While researchers have reported that SAD has an estimated 12-month prevalence rate of approximately 7% in community populations of adults (Fehm, Pelissolo, Furmark, & Wittchen, 2005; Kessler, Chiu, Demler, & Walters, 2005), lifetime prevalence rates may be as high as 10.7% (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012). The onset of social anxiety typically occurs during early to mid-adolescence, at a median age of approximately 13 years (APA, 2013). Research has indicated that 75% of individuals experience first onset by the age of 15 years (Kessler, Berglund, et al., 2005), with rates of SAD increasing sharply after the age of nine and highest in young people aged between 10 and 19 years (Beesdo et al., 2007). Research has also found cross-cultural differences in prevalence rates; approximately 4% of Turkish adolescents were found to experience SAD (Demir, Karacetin, Eralp Demir, & Uysal, 2013) compared with 3% of Finnish adolescents (Ranta, Kaltiala-Heino, Rantanen, & Marttunen, 2009). Furthermore, gender differences indicate that women consistently show higher rates of social anxiety than men, both in the past twelve months (6.5% versus 4.8%; McLean, Asnaani, Litz, & Hofmann, 2011) and across the lifetime (12.3% versus 8.9%; Kessler et al., 2012).

1.1.2 Outcomes for social anxiety

Several studies have found that individuals diagnosed with SAD or who experience elevated symptoms of social anxiety are at risk of poor outcomes relative to their non-socially anxious peers. For example, in a retrospective study of the impact of anxiety disorders on educational outcomes, researchers found that nearly half (48.8%) of individuals with anxiety disorders reported having left school prematurely and that 61.2% of these individuals had a diagnosis of SAD (Van Ameringen, Mancini, & Farvolden, 2003). Leaving school early prior to the completion of high school may have a long-term impact on an individual's well-being and life satisfaction (Stein & Kean, 2000). Even in the absence of depression, at least half of adults with social anxiety have been found to report a substantially reduced quality of life, including poorer general health, mental health and social functioning; this negatively impacted on their work performance, employment and social relationships (Wittchen, Fuetsch, Sonntag, Muller, & Liebowitz, 2000).

Further research has shown that young people with SAD are at increased risk of developing secondary mental health difficulties. SAD has been found to be positively associated with subsequent depression (the risk being threefold for individuals with SAD relative to those with no anxiety disorders; Beesdo et al., 2007) and increased suicide attempts (Bolton et al., 2008; Davidson, Hughes, George, & Blazer, 1993; Khan, Leventhal, Khan, & Brown, 2002). The impact of SAD across development may therefore be partially accounted for through comorbidity with depressive disorders, where both are linked to poorer outcomes, including longer duration of illness and increased risk of attempted suicide (Stein et al., 2001). A further body of research has linked SAD to an increased risk of alcohol dependence and substance abuse (Buckner, Schmidt, et al., 2008; Buckner, Timpano, Zvolensky, Sachs-Ericsson, & Schmidt, 2008). Adolescents with SAD have been found to be twice as likely to have severe alcohol use disorder than their non-anxious peers, with socially anxious females more likely to develop alcohol problems in late adolescence and early adulthood compared with early to mid-adolescence in males (Black et al., 2015). However, it has also been suggested that, as well as being a risk factor for cannabis use, SAD may serve as a protective factor due to its association with reduced levels of peer involvement (Nelemans et al., 2016).

1.1.3 Risk factors for social anxiety

Several theoretical frameworks have been developed to understand the causal pathways leading to SAD, which highlight a complex set of factors linked to its onset (Tillfors, 2004). These include intrinsic or within-individual factors (e.g. genetics, temperament and cognitive biases) (Ollendick & Hirshfeld-Becker, 2002) and extrinsic or environmental factors (e.g. parenting and social relationships) (Brook & Schmidt, 2008).

Based on a review of recent literature, Spence and Rapee (2016) proposed a framework of social anxiety (Figure 1), which indicated how an interaction between intrinsic and environmental factors increases the risk of developing SAD. They suggested that children who are intrinsically predisposed to social anxiety, either through genetics or temperament, are at risk of SAD if exposed to environmental risk factors. These factors then impact on the young person's social skills, problem solving behaviour and coping strategies. With social anxiety perceived as being on a continuum, risk factors may lead to heightened anxiety levels which meet the criteria for a diagnosis of SAD. While some risk factors are likely to be involved in the development of social anxiety, Spence and Rapee (2016) argued that a lack of prospective research means that there is insufficient evidence to establish causation and that some factors may only be involved in the maintenance cycle.

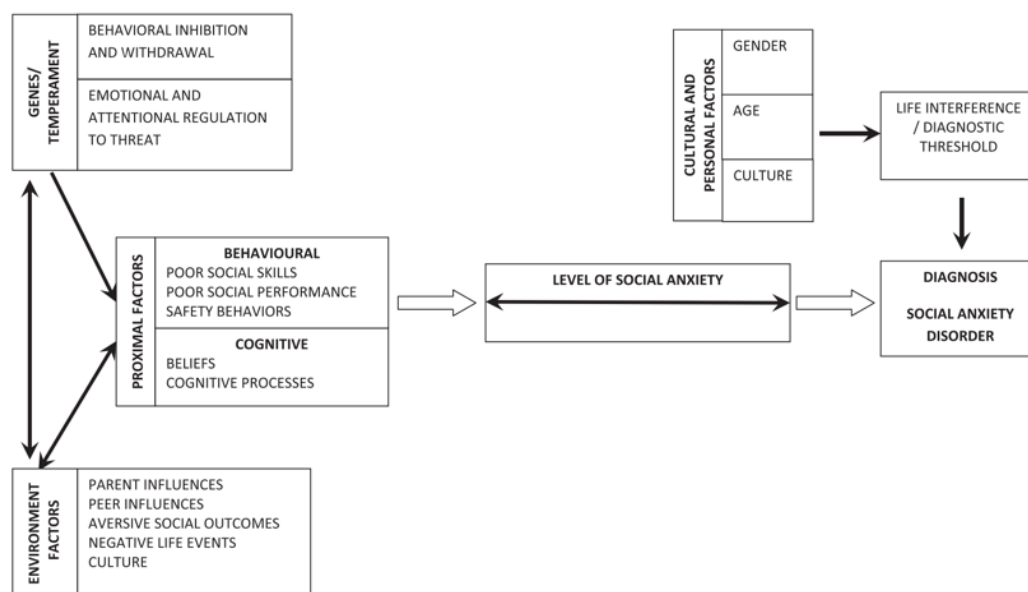


Figure 1. Model of the development of social anxiety and social anxiety disorder (Spence & Rapee, 2016)

One longitudinal study has captured the complexity of developmental pathways leading to SAD. It tracked the development of mental and physical health from preadolescence into adulthood (the TRacking Adolescents' Individual Lives Survey 'TRAILS' study; van Oort, Greaves-Lord, Ormel, Verhulst, & Huizink, 2011); participants aged 10 to 12 years were followed up biannually to identify potential risk factors for anxiety and depression. The results of growth modelling identified a number of generic risk factors for different anxiety types, with risk factors for SAD including temperament, self-esteem, peer factors, parenting and parental mental health. Furthermore, being a victim of bullying was a stable and long-term risk factor for social anxiety, alongside low sociometric status and being a bully.

In support of genetic risk factors, Stein et al. (1998) found a tenfold risk for SAD in first-degree relatives of socially anxious individuals relative to non-anxious individuals. After recruiting 23 adults diagnosed with SAD from their Anxiety Disorders Clinic, all first-degree relatives aged 16 and over took part in diagnostic interviews based on DSM-IV criteria. While 26.4% of relatives of the SAD group experienced general social anxiety, this compared with only 2.7% of relatives for the comparison group. The authors suggested that although general SAD was found to occur within families, it was not possible to distinguish between heritability and shared family experiences. A recent meta-analysis was conducted to explore genetic and environmental contributions to SAD in both children and adults. Using data from 12 twin studies, involving a total sample of 42,585 children and adults from Europe, the USA and Australia, an estimated heritability of 54% for SAD in children relative to 27% in adults was found (Scaini, Belotti, & Ogliari, 2014). Although this indicates that genetic factors make a significant contribution to SAD, particularly in children, non-shared environmental factors (e.g., illness and peer relationships) were also important.

Another intrinsic factor which is believed to be important for the development of social anxiety is the temperament of the child. Behaviour inhibition is a temperament characterised by heightened vigilance to threat and novelty, social reticence, and withdrawal from engaging with unfamiliar peers (Fox, 2010). Children who are behaviourally inhibited have been found to be at greater risk of developing SAD in adolescence, with this relationship stronger in girls than boys (Schwartz, Snidman, & Kagan, 1999). A meta-analysis was carried out involving seven longitudinal studies exploring the association between childhood behaviour inhibition and SAD (Clauss &

Blackford, 2012). It was found that there was a sevenfold increase in risk of developing SAD for behaviourally inhibited children.

Although genetic factors may have a moderate influence on anxiety in children, it is also suggested that environmental factors play an important role (Gregory & Eley, 2007). For example, parental control, overprotection and parental mental health have been linked to the development of SAD (Brook & Schmidt, 2008). Research has found that mother's social anxiety significantly predicted children's (Bögels, Van Oosten, Muris, & Smulders, 2001) and that there was an association between SAD in offspring and parental social anxiety, other anxiety and depression (Lieb et al., 2000). While familial patterns of SAD are partially indicative of genetic risk, parents are also argued to model their own fears of social situations and are less likely to facilitate social experiences for themselves or their children (Ollendick & Hirshfeld-Becker, 2002). In addition, parent rejection is a significant predictor of child social anxiety (Festa & Ginsburg, 2011) and it has been shown that socially anxious children judge their parents as less emotionally warm and more rejecting than non-socially anxious children (Bögels et al., 2001). Furthermore, research has indicated that maternal overprotection is a significant predictor of children's social anxiety (Bögels et al., 2001) and that fathers of children with high social anxiety are more controlling than those with less anxious children (Greco & Morris, 2002).

Although the relationship between children and their parents is particularly important in childhood and preadolescence, peer relationships take on greater importance in adolescence as young people spend increasing amounts of time with their friends (Furman & Buhrmester, 1992; Prinstein, Boergers, & Vernberg, 2001) and become particularly vulnerable to social embarrassment (Ollendick & Hirshfeld-Becker, 2002). In a review of cumulative risk factors for social anxiety and depression, Epkins and Heckler (2011) reported that core risk factors (e.g. temperament and genetics) were insufficient for the development of social anxiety, and that peer-related risk factors were more strongly linked to child and adolescent social anxiety than family-related variables. They also highlighted possible gender differences across a number of different peer-related risk factors including peer acceptance and rejection, victimisation, and loneliness, with mixed results. The finding that negative peer relations may serve as risk factors for the development of SAD later in life, could partly be accounted for through developmental cascade effects, where problems in one area could undermine functions in other domains and form part of a negative pathway to social anxiety (Masten, 2014; Masten & Cicchetti, 2010).

A large body of work has aimed to demonstrate that elevated social anxiety is associated with difficult peer relationships (Bracik, Krysta, & Zaczek, 2012), with research finding that children with SAD experience lower quality friendships than their non-anxious peers (Baker & Hudson, 2015) and are more likely to perceive themselves as less socially accepted (Ginsburg, La Greca, & Silverman, 1998). Although socially anxious adolescents have also been found to have social relationships characterised by submissive behaviour (Walters & Inderbitzen, 1998), further evidence indicates that the quality of friendships can increase risk for, or protection from, the development of social anxiety. For example, in a study of the predictors of social anxiety in young people, Festa and Ginsburg (2011) found that children who experienced validation and acceptance in their friendships were less likely to experience symptoms of social anxiety. While research has also suggested that increased peer support is associated with decreased social anxiety (Cavanaugh & Buehler, 2016), evidence remains inconsistent, with Grills-Tauechel, Norton and Ollendick (2010) finding that adolescent peer support did not predict social anxiety.

Although adolescent girls are at increased risk of developing SAD relative to boys (DeWit et al., 2005), gender is an area that has not yet been focussed on specifically. Evidence indicates that there are consistent gender differences in peer experiences (Rose & Rudolph, 2006), however, it is not clear which aspects of peer relations are critically important in the development of social anxiety in girls. This systematic review will examine the literature on the role of peers in the development of social anxiety in adolescent girls, in order to increase our understanding of peer-related risk and protective factors. Its specific aim is to inform interventions to promote the development of positive peer experiences, and to support adolescent girls at risk of social anxiety.

The following questions will be addressed:

1. To what extent do peer relationships have a role in the development of social anxiety in adolescent girls?
2. What are the peer-related risk or protective factors for the development of social anxiety in adolescent girls?
3. Are there gender-specific pathways for the development of social anxiety in girls?

1.2 Method

1.2.1 Search strategy

A systematic search of the literature was conducted using two electronic databases: PsycINFO via EBSCO and Web of Science (1970-2016). The search terms used in this literature review included "social anxiety" or "social anxiety disorder" or "social phobia" and peer or "peer relation*" or interpersonal or classmate or "social relation*" or friend* or "peer group*" (see Appendix A for full search details). The list of search terms was generated by the author based on key terms identified in research papers during the initial searches. The thesaurus function was also used to explore related terms and constructs.

In PsycINFO, the results were filtered by limiters including publication (peer reviewed only), language (English), population (female) and age groups (school age 6-12 years; adolescence 13-17 years). In Web of Science, articles were filtered by publication type (article only) and language (English) and later refined by Topic (adolescen* or child*).

The search was completed in October 2016 and resulted in the identification of 839 articles to be screened by title and abstract. At this stage, studies were excluded if they met the exclusion criteria or did not relate to the research questions being addressed. A total of 63 articles were retrieved in full and assessed for eligibility against the inclusion and exclusion criteria (see Table 1). A total of 24 articles met the criteria for extraction and were included in this review; no qualitative research was found. A summary of the systematic search strategy utilised in this review is shown in Figure 2. Information was extracted from the articles about authors, country, design, participants, measures of social anxiety, peer relationship measures, and relevant research findings (see Appendix C).

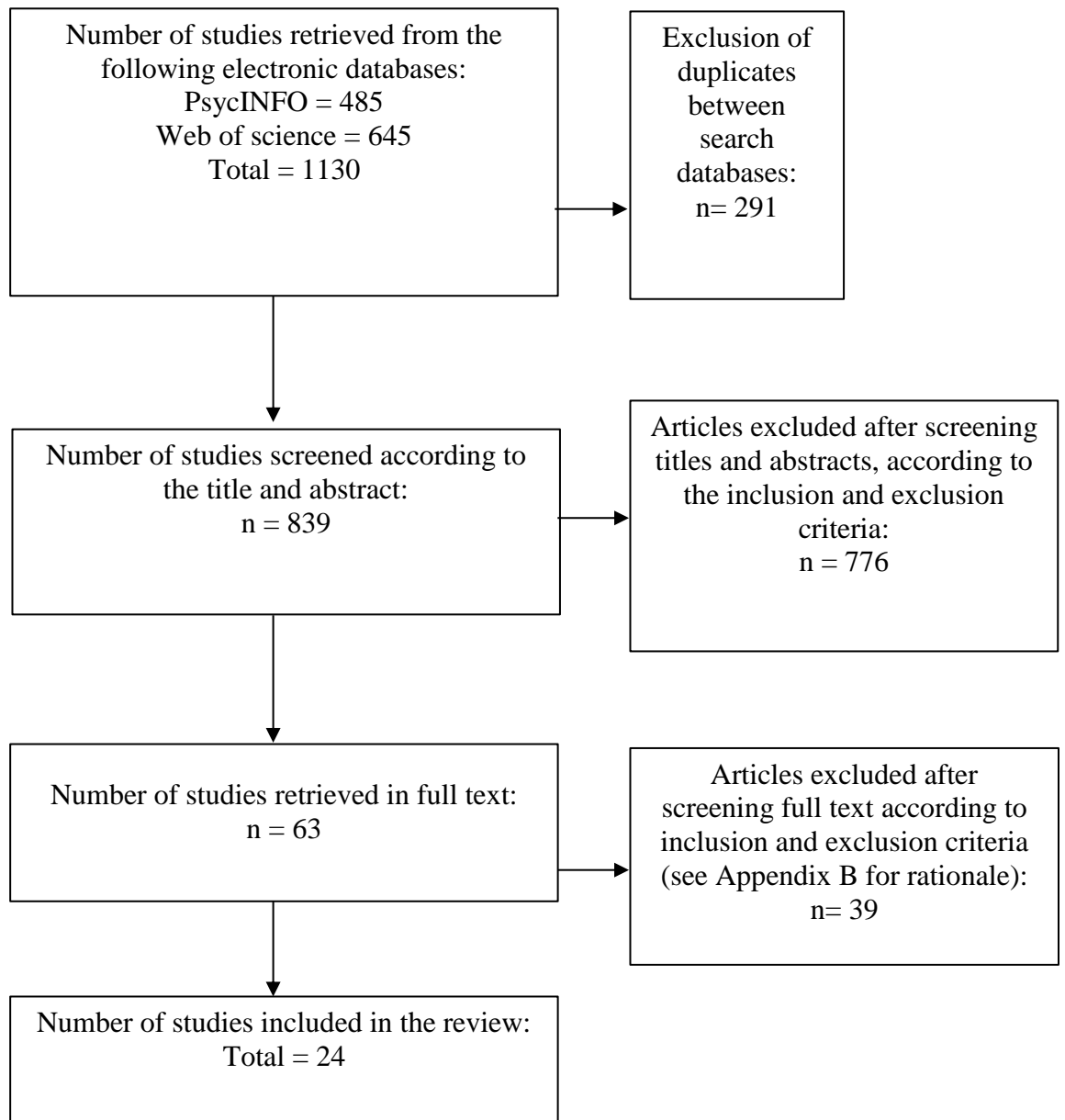


Figure 2. Flow chart detailing the results of the systematic search process and the application of the inclusion and exclusion criteria

1.2.2 Inclusion and exclusion criteria

This literature review aimed to determine the extent to which peers have a role in the development of social anxiety in adolescent girls, therefore, articles were only included if they involved pre-adolescent or adolescent girls aged between 10 and 17 years. Studies were excluded from the review if they did not involve participants within this age range. Research articles were only included if they measured social anxiety as an outcome variable and included data pertaining to the development of social anxiety. It was also necessary for research articles to include separable data for girls relating to the role of peers in the development of social anxiety.

Table 1 *Inclusion and Exclusion Criteria for Review*

Study Item	Inclusion Criteria	Exclusion Criteria
Measures	<p>Measure of social anxiety either a standalone measure or as part (subscale) of a broader anxiety measure.</p> <p>Social anxiety measured as outcome variable.</p> <p>Measure of at least one aspect of peer relationships e.g. peer victimisation, attachment, friendship quality.</p>	<p>No measure of social anxiety. No measure of peer relationships.</p> <p>Measures only of general anxiety, separation anxiety, specific phobia, and other anxiety types.</p> <p>Measures only of sibling or non-peer relationships.</p> <p>Social anxiety considered as independent/predictor variable or as moderator/mediator only (i.e. focus not on social anxiety).</p>
Participants	Preadolescent and adolescent girls aged 10-17 years, including from mixed populations.	Populations including only young girls below 10 years or female adults aged 18 and over. Male populations only.
Design Requirements	<p>Cross-sectional or longitudinal research.</p> <p>Analysis of data by gender. Data separable for girls.</p>	<p>Review articles, meta-analyses or brief reports.</p> <p>Interventions to reduce social anxiety.</p> <p>Does not consider gender or data is not separable for boys and girls.</p>
Publication Requirements	Peer reviewed articles published in journals. Published in English.	Articles not published in English. Book chapters, dissertations and other unpublished articles.

1.2.3 Quality assessment

The studies in this review were assessed for quality using a modified tool (Appendix D) based on the Downs and Black (1998) checklist and the Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (National Institute of Health, 2014). Consideration was given to a number of key areas including the reliability and validity of the measures used, potential confounding variables, participation rate and representativeness of the population, and the duration of the research.

The results of the quality assessment (Appendix E) found that the scores for cross-sectional studies ranged from 8 to 11 (maximum 14), while longitudinal studies ranged from 12 to 16 (maximum 18). This indicated that there was minimal difference in the quality of studies included in this review, with all being of an acceptable standard. Although studies consistently reported their aims or hypotheses, as well as the characteristics of participants, only a third provided detailed information on their inclusion and exclusion criteria. The majority (n=20) of studies had a representative community-based sample of participants, with 14 studies reporting a participation rate of >50%. All studies provided a good description of the measures used, with the majority (n=23) providing a detailed and clear description of their main findings.

Of the longitudinal studies, the majority had a sufficient timeframe to detect a change in social anxiety, with only one study having a particularly short time of two months (Siegel, la Greca, & Harrison, 2009). Loss to follow-up was widely considered by the studies in this review, with seven articles experiencing a loss of >20%.

1.3 Results

1.3.1 Participants

The participants in the 24 studies ranged from age 8 to 19 years, with all studies including a number of participants aged between 12 and 15 years; the majority of studies (n=17) included participants within the 13 to 14 age range. The total number of participants involved in each study varied from 66 to 5,537. While 50% of the studies included between 205 and 561 participants, 25% had fewer than 200 and 25% over 1,500. Twenty-one studies included a mixed group of participants, with the remaining three involving females only. The gender ratio in the mixed studies was approximately equal, with three including >60% girls.

The majority of studies were conducted in the USA (n=17), with one study each from Finland, the Netherlands, Sweden, Western Europe, Canada, China and Taiwan. The ethnicity of participants was consistently reported across studies from the USA. Of these, the majority had a predominantly Caucasian population (n=12), with 10 studies consisting of >70% Caucasian participants. Three studies included >67% Hispanic participants and two >50% African American.

1.3.2 Design

All studies included in this review were quantitative and involved either a cross-sectional (n=12) or longitudinal (n=12) design. The longitudinal studies were conducted over two or three time points and included timespans of three years (n=1), two years (n=3), one year (n=4), nine months (n=3) and two months (n=1).

1.3.3 Measures of social anxiety

The outcome measures of social anxiety were largely consistent across studies, with a total of 14 administering directly comparable measures including the Social Anxiety Scale for Adolescents (La Greca & Lopez, 1998) and the Social Anxiety Scale for Children-Revised (La Greca, 1999; La Greca & Stone, 1993). A further five studies administered the Multidimensional Anxiety Scale for Children (March, 1997), with the remainder using the Social Anxiety Scale for Children (La Greca, Dandes, Wick, Shaw, & Stone, 1988), the Social Phobia and Anxiety Inventory for Children (Beidel, Turner, & Morris, 1995, 1998), the Social Phobia Inventory (Connor et al., 2000) and the Social Phobia Screening Questionnaire for Children (Gren-Landell et al., 2009).

The Social Anxiety Scales for Children (Revised) and Adolescents consist of three subscales including: fear of negative evaluation from peers, general social avoidance and distress, and social avoidance and distress of new social situations and unfamiliar peers (La Greca & Lopez, 1998). Reliability for these measures was reported across studies, with internal consistency found to be adequate or above.

1.3.4 Measures of peer relationships

As different aspects of peer relationships were explored by the studies in this review, a range of measures was used to gather data on (1) peer acceptance, (2) peer support, (3) friendship quality and (4) peer victimisation. While some measures were administered across multiple studies, others were used infrequently.

Three of the four studies which measured (1) peer acceptance in this review used the six-item self-report social acceptance subscale of the Self-Perception Profile for Children (Harter, 1985) or Adolescents (Harter, 1988), with internal consistency reported to be acceptable on both measures (Grills-Taquechel et al., 2010; Harter, 1988; Hutcherson & Epkins, 2009; La Greca & Lopez, 1998). One study used factor analysis to identify items from multiple measures that loaded onto a latent Peer Acceptance variable (La Greca &

Lopez, 1998), while others developed their own measures based on the number of peer nominations young people received (Flanagan, Erath, & Bierman, 2008; Tillfors, Persson, Willen, & Burk, 2012). Although the latter is not directly comparable with the self-report Self-Perception Profile for Children or Adolescents, it does provide an indication of acceptance through peer reported nominations.

Measures of (2) peer support were more varied. While three studies used the classmate and close friend subscales of the Social Support Scale for Children (Harter, 1985), other measures included a five-item Friend Support Scale (Richman & Bowen, 1997), the seven-item Children's Friendship Scale (Berndt & Perry, 1986; Vernberg, Abwender, Ewell, & Beery, 1992), the Social Support Appraisal Scale from the Survey of Children's Social Support (Dubow & Ullman, 1989) and the relationship support subscale of the Friendship Qualities Questionnaire (Parker & Asher, 1993). Internal consistency was reported to be adequate for all measures. Although Tillfors et al. (2012) administered 14 items from the Friendship Qualities Questionnaire, factor analysis was used to identify the two latent variables of relationship support and negativity; relationship support consisted of 10 items and had good internal consistency at two time-points.

Friendship quality (3) was measured using a variety of self-reported questionnaires including the aforementioned Friendship Qualities Questionnaire (n=3), the Friendship Interview (n=1), the Adolescent Interview (adapted from the Friendship Interview; Vernberg, 1990; n=1), the Network of Relationship Inventory–Revised (n=1; Furman & Buhrmester, 1985), the Self-Perception Profile for Adolescents (n=2) and the Social Support Scale for Children (n=1). Although many studies administered only one measure, La Greca and Lopez (1998) again identified subscales from multiple measures that loaded onto a latent friendship factor. Of the three studies that used the Friendship Qualities Questionnaire, only one administered the full 40-item scale (Greco & Morris, 2005), although internal consistency was reported to be adequate or good for all three studies.

A range of (4) peer victimisation measures was also used across studies in this review including the Social Experiences Questionnaire (Crick & Grotpeter, 1996; n=7), the Revised Peer Experiences Questionnaire (n=2), the Victimisation Questionnaire (n=1), the Olweus Bully/Victim Questionnaire (Olweus, 1996), the Rejection Experiences Questionnaire and the School Bullying Experience Questionnaire (n=1). Although the Social Experiences Questionnaire was the most frequently used self-report measure, and has been shown to have good reliability and validity (Crick & Grotpeter, 1996), most

studies administered different versions. While two studies administered only the relational victimisation subscale to assess social exclusion and reputational threat (Hamilton et al., 2013, 2016), others administered modified versions such as by adding questions to the subscales of overt and relational victimisation (Storch, Brassard, & Masia-Warner, 2003; Storch & Masia-Warner, 2004). However, internal consistency was reported to be good for the relational subscale by all but one study, and adequate for overt victimisation.

1.3.5 Gender differences in social anxiety

Due to the focus on girls in this review, not all research articles included mixed samples or were able to consider gender differences in social anxiety. However, where gender differences were analysed, findings were mixed. While a number of studies reported that there was no significant gender difference in levels of social anxiety (DeWit, Karioja, Rye, & Shain, 2011; Flanagan et al., 2008; Grills-Taquechel et al., 2010; La Greca & Harrison, 2005; Siegel et al., 2009), eight studies found that girls scored significantly higher on measures of social anxiety than boys (e.g. Hamilton et al., 2016; Storch, Brassard, et al., 2003; Yen et al., 2013); age ranges were comparable across significant and non-significant studies. For example, in an early piece of research exploring social anxiety in adolescents aged 15 to 18 years (n=250), La Greca and Lopez (1998) found that girls reported more total social anxiety than boys. This contrasts with a more recent study by La Greca and Harrison (2005) who found no significant gender difference. More specifically, differences have been found on individual subscales of social anxiety, with girls reporting significantly higher levels of fear of negative evaluation (La Greca & Lopez, 1998; Storch, Brassard, et al., 2003) and general avoidance and distress than boys (Storch, Phil, Nock, Masia-Warner, & Barlas, 2003), as well as more physiological symptoms (Storch, Brassard, et al., 2003).

The results of longitudinal research have shown that girls self-reported significantly more social anxiety over time than boys. In studies of adolescents aged 12 to 13 years, Hamilton et al. (2016) found that girls reported higher levels of social anxiety than boys at baseline and nine month follow-up (n=410), while Hamilton et al. (2013) found that this difference remained at 18 months (n=225). Similarly, in their study of early adolescents aged 10 to 14 years (n=490), Loukas and Pasch (2013) found that after controlling for social anxiety levels at baseline, girls reported significantly higher levels than boys one year later. This indicates that higher baseline levels do not account for the increased social anxiety experienced by girls over time. Although Grills-Taquechel et al. (2010) found that

there was no significant gender difference in social anxiety scores at baseline or at two year follow up (n=77), the pattern of results differed between boys and girls. While girls social anxiety increased slightly over time, boys reported a significant decrease between age 11 and 15 years. This indicates that gender may have a moderating role in the development of social anxiety across childhood and adolescence.

1.3.6 Factors contributing to the development of social anxiety

1.3.6.1 Peer acceptance

Six studies in this review explored the relationship between peer acceptance and social anxiety, with peer acceptance defined by Greco and Morris (2005, p.197) as the extent to which a child is liked or noticed by their peer group; this construct differs from friendship in that it does not require a mutually reciprocal relationship. In their cross-sectional study on peer relationships in adolescence, La Greca and Lopez (1998) used the Self-Perception Profile for Adolescents (Harter, 1988) to explore the association between peer acceptance and social anxiety. They found that low peer acceptance was significantly associated with social anxiety in boys and accounted for between 10% and 17% of variance in social anxiety scores. For girls, both close friendships and peer acceptance significantly and negatively predicted social anxiety, together accounting for between 29% and 43% of variance. Low peer acceptance continued to significantly predict higher social anxiety in girls, after controlling for the contribution of friendship quality (La Greca & Lopez, 1998), suggesting that peer acceptance may be a significant factor in the development of social anxiety. This is further supported by Hutcherson and Epkins (2009) who found that social anxiety in pre-adolescent girls (n=100, 9 to 12 years) was significantly and negatively associated with both mother and child reported peer acceptance.

Longitudinal research has also found a significant association between peer acceptance and social anxiety. For example, Grills-Tauechel et al. (2010) found that self-perceived social acceptance significantly and uniquely predicted adolescents' social anxiety two years later with higher social acceptance from their peers associated with decreased social anxiety at age 13 to 14 years. However, as no interaction effect was found between social acceptance and gender, this indicates that the association between peer acceptance and social anxiety was consistent for boys and girls. Perceived social acceptance could therefore be considered as an important protective factor against social

anxiety, with Grills-Taquechel et al. (2010) suggesting that this may highlight the importance of a sense of belonging, of which peer acceptance is an important part.

In a further cross-sectional study exploring the relationship between peer acceptance and social anxiety, Flanagan et al. (2008) used the peer social network diagram (Lansford & Parker, 1999; Parker & Herrera, 1996) to obtain adolescents' positive peer nominations (n=383, 11 to 14 years). Although similar to sociometrics, this method includes only unilateral nominations of friendships, with group-level peer acceptance based on the number of nominations adolescents received. Flanagan et al. (2008) found a significant negative correlation between peer nominations and social anxiety, indicating that increased peer acceptance was associated with low social anxiety. Using a similar peer nomination approach, Tillfors et al., (2012) examined the prospective links between adolescent peer relations and social anxiety in Swedish students (n=1,528) aged 12 to 19 years. After controlling for age, a significant and negative concurrent correlation was found between peer acceptance and social anxiety, but only for girls at one year follow-up. Although peer acceptance uniquely predicted decreases in social anxiety over time for both genders, this relationship was not bi-directional. This indicates that heightened levels of social anxiety do not account for low peer acceptance, but supports the aforementioned suggestion that being accepted by peers may serve as a protective factor against the development of social anxiety during adolescence.

1.3.6.2 Peer attachment

Two studies in this review explored the association between peer attachment and social anxiety using the Inventory of Parent and Peer Attachment (Armsden & Greenberg, 1987), with peer attachment defined as an affective bond between adolescents and their peers (Lu et al., 2015). In a study involving both deaf (n=112) and hearing (n=133) adolescents aged 10 to 15 years, Lu et al. (2015) found that for children with normal hearing, peer attachment was significantly and negatively correlated with social anxiety. Further analysis of the results by gender found that for hearing children, this association was stronger for girls than boys. The quality of adolescent girls' relationships with their peers (n=83, 13 to 14 years) was assessed in more depth in a study by Starr and Davila (2008), who found that social anxiety was significantly and negatively associated with the peer attachment variables of trust in friends and peer communication, after controlling for depression; the association between greater alienation with friends and social anxiety was marginally non-significant. Although this suggests that peer attachment may be

specifically related to risk for social anxiety in girls, the lack of longitudinal data means that it is not possible to determine whether peer attachment plays a significant role in the development of social anxiety over time.

1.3.6.3 Friendship quality

Of the 24 articles included in this review, seven reported on the association between adolescent friendship and levels of social anxiety. In a longitudinal study exploring the role of friendship in the development of social anxiety in adolescents aged 10 to 18 years (n=2,194), Van Zalk and Van Zalk (2015) found that adolescents who were selected more as close friends experienced decreased social anxiety over time. Gender was found to be a significant moderator in this relationship, in that girls who were selected as a friend were less likely to experience an increase in social anxiety, relative to boys. This is consistent with the results of Starr and Davila (2008), who found that girls who reported having fewer close friends experienced higher levels of social anxiety, and suggests that being nominated as a friend serves as a stronger protective factor specifically for girls. Furthermore, Van Zalk and Van Zalk (2015) found that care by friends mediated the association between being selected as a friend and social anxiety, with adolescents who felt more cared for by their friends less likely to experience increased symptoms of social anxiety.

In an early longitudinal study of adolescents aged 12 to 14 years, Vernberg et al. (1992) conducted a prospective analysis of the bidirectional relationships between friendship quality (or rejection experiences) and social anxiety. They found that low companionship and intimacy in friendship predicted measures of social anxiety at two and nine months. Although there were no significant gender interactions, social anxiety was also found to predict later companionship and intimacy in friendships, leading them to conclude that there was a reciprocal relationship between social anxiety and friendship quality in early adolescence for boys and girls.

In a more recent study of predictors of social anxiety and depression, La Greca and Harrison (2005) found that low positive and high negative friendship qualities were unique predictors of social anxiety in adolescents aged 14 to 19 years (n=421). Despite studies finding that girls scored higher on positive friendship qualities (Greco & Morris, 2005) than boys, and lower on negative interactions (La Greca & Harrison, 2005), both Flanagan et al. (2008) and La Greca and Harrison (2005) found gender interactions to be non-

significant. This indicates that the relationship between friendship quality and social anxiety was consistent across both genders (La Greca & Harrison, 2005).

In contrast, La Greca and Lopez (1998) found gender differences in the relationship between friendship qualities and social anxiety, with a lack of close friendships significantly predicting general social anxiety in adolescent girls only. Similarly, in a study of preadolescent children aged 8 to 12 years ($n=333$), Greco and Morris (2005) found that positive friendship qualities were significantly and negatively correlated with measures of social anxiety for girls only. Furthermore, negative friendship quality was found to moderate the relationship between social preference and social anxiety; girls with low social preference ratings experienced higher levels of social anxiety when their friendships were characterised by high negative friendship qualities. This indicates that girls who are less well accepted by their peers may be at increased risk of social anxiety when they experience difficulties in their friendships. Greco and Morris (2005) suggested that this gender difference may reflect the structure of boys' and girls' friendship groups, with girls tending to prefer a smaller and more intimate friendship group than boys.

1.3.6.4 Peer support

A proportion of the studies in this review investigated the relationship between peer support and social anxiety ($n=6$) with mixed findings. In a small scale longitudinal study, Grills-Tauchel et al. (2010) explored risk and resilience factors that predicted anxiety during transition to middle school. They asked adolescents, aged 11 to 15 years, to complete measures of social support and social anxiety at two time points and found that classmate and friendship support at age 11 to 12 years did not significantly predict social anxiety two years later. This indicates that, in this study, peer support was not related to adolescents' social anxiety during the transition to middle school.

However, a more recent study suggested that peer support may have an important role in adolescents' social anxiety by acting as a protective factor. In a longitudinal study involving 416 adolescents aged between 11 and 14 years, Cavanaugh and Buehler (2016) explored the association between cumulative and unique sources of social support, and adolescents' social anxiety. They found that cumulative support from parents, teachers and peers was associated with decreased anxiety in early adolescence, with this association stronger for boys than girls. Peer support was also uniquely associated with decreased social anxiety in early adolescence, a finding that was consistent across both genders. As peer relationships become increasingly important during adolescence, the authors

suggested that adolescents may be more likely to draw on support from their peers in social situations due to their availability and the validation they provide.

Further evidence for the role of peer support was also provided by Tillfors et al. (2012), who found that social anxiety was significantly and negatively correlated with peer relationship support at baseline and one year later. Although this modest relationship was found for both genders, peer relationship support was not found to predict decreases in social anxiety over time. In a study of preadolescent girls only, Hutcherson and Epkins (2009) researched parent- and peer-related interpersonal correlates of social anxiety. They found that classmate support and close friend support, as reported by children themselves, were significantly and negatively correlated with social anxiety. After controlling for depression, only classmate support remained significant, with self-reported loneliness found to mediate the relationship between classmate support and social anxiety. Although the cross-sectional design of this research prevents causal pathways from being identified, the results indicate that increased classmate support may serve as a protective factor for girl's social anxiety by reducing their internal distress and feelings of loneliness.

While research indicates that peer support may be associated with social anxiety, no gender differences in this relationship have been found (Cavanaugh & Buehler, 2016; Tillfors et al., 2012). In one of the earlier studies included in this review, La Greca and Lopez (1998) found that girls reported higher levels of social anxiety than boys, and more social support from their friends; the negative correlation between social anxiety and classmate support was stronger for girls. In addition, boys who experienced less support from their friends reported higher levels of general social avoidance and distress only, while girls were found to report higher levels of social anxiety across all areas. This indicates that although low levels of peer support may be involved in the development of social anxiety across both genders, friendship support may be differentially related to social anxiety in boys and girls.

One study by DeWit et al. (2011) explored the role of peer support further by investigating adolescents' perceptions of declining support during their transition to high school. In a twelve-month study involving 2,616 Canadian adolescents aged 12 to 16 years, they found that adolescents who experienced higher levels of peer support at the beginning of Grade nine (age 13 to 14 years) were more likely to experience an increase in social anxiety; adolescents' perception of declining support was associated with increased social anxiety. There was no difference in the predictors of social anxiety between gender, however, girls perceived themselves as having higher levels of classmate support at the

beginning of Grade nine, and a slower rate of decline in support over time compared with boys. Overall, this study suggested that peer support is an important protective factor, and if adolescents experience a greater decline in support, they may be placed at increased risk of social anxiety.

1.3.6.5 Peer victimisation

One aspect of peer relationships that was considered by the majority of articles in this review (n=14) was that of peer victimisation, with many studies providing evidence of a significant association between peer victimisation and social anxiety. For example, in their cross-sectional study exploring peer relations in early adolescence, Flanagan et al. (2008) found that peer victimisation made a significant and unique contribution to social anxiety, with this relationship stronger for boys than girls. Although positive associations were also found by Tillfors et al. (2012), they reported that the association between peer victimisation and social anxiety was stronger for adolescent girls than boys, at one year follow-up. While exploring gender differences in the association between victimisation experiences and psychosocial wellbeing in Dutch preadolescents aged 8 to 12 years (n=2,859), van der Ploeg, Steglich, Salmivalli, and Veenstra (2015) found that although social anxiety was significantly associated with a higher number of bullies in boys, it was more strongly associated with frequency of victimisation in girls.

Several of the articles included in this review provided evidence regarding the relationship between types of victimisation, including overt and relational, and social anxiety. While overt victimisation refers to physical harm or associated threats (Storch & Masia-Warner, 2004), relational victimisation involves being harmed through manipulation or damage to interpersonal relationships, such as spreading rumours or being excluded by peers (Crick & Grotpeter, 1996). In a study examining the relationship between different types of bullying experiences and social anxiety in Taiwanese adolescents (n=5,527) aged 11 to 18 years, Yen et al. (2013) found that victims of verbal and relational bullying, and 'physical bullying and belongings snatch', reported more severe social anxiety than non-victims. However, they also found that perpetrators of verbal and relational bullying reported more severe social anxiety than non-perpetrators, which suggests that although victims of bullying may be at increased risk of developing social anxiety, heightened social anxiety may also be associated with an increased risk of adolescents verbally bullying their peers. Gender did not moderate the association between involvement in bullying and social anxiety.

Evidence regarding the relationship between overt victimisation and social anxiety was mixed. In a longitudinal study designed to examine the role of school connectedness as a moderator in the relationship between victimisation and later adjustment difficulties, Loukas and Pasch (2013) found that overt and relational victimisation at baseline was positively associated with concurrent and later social anxiety, in boys and girls. However, after controlling for baseline social anxiety and gender, only overt victimisation was found to uniquely contribute to later social anxiety. Gender did not moderate the effect, indicating that overt victimisation was associated with similar increases in social anxiety in boys and girls.

Despite reporting a positive association between overt victimisation and social anxiety, the results of La Greca and Harrison (2005) contrast with the above findings in that overt victimisation did not make a significant and unique contribution to social anxiety, when considered alongside relational victimisation. Similarly, Siegel et al. (2009) reported that although overt victimisation was significantly correlated with social anxiety at baseline and two months ($n=228$), it did not uniquely predict social anxiety concurrently or over time. This suggests that overt victimisation may not contribute to social anxiety in older adolescents, with both studies involving comparable populations of adolescents aged between 14 and 19 years.

To further explore the prospective links between victimisation and adolescent social anxiety, Storch, Masia-Warner, Crisp, and Klein (2005) conducted longitudinal research involving high-school students aged 13 to 15 years ($n=198$). While concurrent associations were found, overt victimisation at baseline did not predict later social anxiety in boys or girls after controlling for initial levels of social anxiety. Although this is consistent with the findings of Siegel et al. (2009), it contrasts with the work of Loukas and Pasch (2013). One possible explanation for these conflicting findings could therefore be that, as the latter study involved younger participants aged 10 to 14 years, overt victimisation predicts increases in social anxiety in early adolescents only.

Research has also explored the association between overt victimisation and specific variables of social anxiety. In a series of cross-sectional studies published by the same lead author (Storch, Brassard, et al., 2003; Storch & Masia-Warner, 2004; Storch, Phil, et al., 2003), the results found that overt victimisation was significantly and positively associated with fear of negative evaluation, social avoidance and distress of new situations, and general social avoidance, with medium to large effect sizes reported (Storch, Phil, et al., 2003). Analysis of their results by gender found that overt victimisation was a significant

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predictor of all variables of social anxiety in adolescent girls ($n=186$, 10 to 13 years), but did not predict social avoidance of new situations for boys (Storch, Phil, et al., 2003). Therefore, although overt victimisation was found to be a significant predictor of social anxiety across genders, it may be uniquely linked to social avoidance in adolescent girls.

Cross-sectional studies have consistently found that, as for overt victimisation, there is a significant association between relational victimisation and social anxiety. For example, La Greca and Harrison (2005) found that relational victimisation was positively correlated with, and uniquely predicted, social anxiety in boys and girls. Likewise, Storch, Phil, et al. (2003) found that relational victimisation in Hispanic and African American preadolescents was significantly and positively correlated with social anxiety measures. However, after controlling for overt victimisation, the results indicated that relational victimisation was uniquely associated with fear of negative evaluation and general social avoidance in girls only.

Further evidence of the association between relational victimisation and social anxiety was found by Storch and Masia-Warner (2004). In their cross-sectional study involving adolescent girls ($n=561$) aged 13 to 17 years, they found that relational victimisation was positively correlated with measures of social anxiety and, after controlling for prosocial behaviour, uniquely predicted all individual variables on the Social Anxiety Scale for Adolescents. Girls who reported higher levels of relational victimisation experienced increased social anxiety, relative to non-victims and victims of overt victimisation only, leading them to suggest that relational victimisation may place girls at increased risk of later adjustment difficulties. Furthermore, although participants were recruited from a school-based non-clinical population, Storch and Masia-Warner (2004) found that girls experiencing relational victimisation reported levels of social anxiety at or near clinically significant levels.

Longitudinal studies provided further evidence of the role of relational victimisation for the development of social anxiety in adolescence. A recent study by Hamilton et al. (2016) involving adolescents aged 12 to 13 years, explored the relationship between relational victimisation and social anxiety over three time points, each approximately nine months apart. They found that relational victimisation significantly predicted social anxiety at nine months, which further predicted social anxiety at 18 months. Although this indicates that relational victimisation may have a direct influence on social anxiety over time, Hamilton et al. (2016) also found an indirect effect through its association with symptoms of depression at nine months. This suggests that comorbid mental health

difficulties may further exacerbate levels of social anxiety. However, in contrast with aforementioned studies, Hamilton et al. (2013) and Storch et al. (2005) found that baseline relational victimisation did not predict increases in social anxiety over time. Little explanation has been offered for these conflicting findings but, given the similarity in the measures used and population age, it is possible that the results are due to the increased sample size recruited by Hamilton et al. (2016).

In an early longitudinal study involving 68 young adolescents aged 12 to 14 years, Vernberg et al. (1992) also explored the prospective links between relational victimisation and social anxiety. They found that while peer exclusion at the beginning of the academic year predicted increased fear of negative evaluation two months later, only girls experienced increased social avoidance of new situations. Ongoing experiences of peer exclusion between two and nine months also predicted increased social anxiety across both genders. Rejection by peers during the first few months of the academic year may therefore increase girls' fear of negative evaluation and social avoidance of new situations which, over time, has a broader impact on general social anxiety.

Further studies have found mixed results regarding gender differences. While Siegel et al., (2009) reported that gender did not moderate the concurrent relationship between relational victimisation and social anxiety, this was not the case over time. Relational victimisation at baseline significantly predicted increased social anxiety for girls but not boys. Similarly, in their study of peer victimisation in Finnish adolescents (n=2,070, 15 to 17 years), Ranta, Kaltiala-Heino, Frojd and Marttunen (2013) found that relational victimisation at age 15 was independently associated with social anxiety at age 17 in girls, but not boys, after controlling for baseline social anxiety and victimisation; girls who were relationally victimised at age 15 had a sixfold increase in risk of developing social anxiety at age 17. Overall, while the findings for overt victimisation are mixed, research suggests that relational victimisation may be a stronger predictor of social anxiety and social avoidance in adolescent girls.

1.4 Discussion

The aim of this systematic review was to explore the literature on the role of peers in the development of social anxiety in adolescent girls and, specifically, to further our understanding of peer-related risk factors and gender-specific pathways. Overall, the literature outlined risk factors that were common to the development of social anxiety across genders, as well as those that were uniquely linked to girls. This suggests that

frameworks could be developed to capture generic and gender-specific risk. It also provided evidence that while some aspects of peer relations may be risk factors for the development of social anxiety in adolescent girls, others may serve as important protective factors.

Consistently, research has found that there was a significant association between peer victimisation and social anxiety across both genders. While some studies found that the association was stronger for boys than girls (Flanagan et al., 2008), others found that it was stronger for girls over time (Tillfors et al., 2012). More specifically, the findings on the association between overt victimisation and social anxiety were mixed. A limited amount of evidence was found to suggest that overt victimisation predicted social anxiety in younger adolescents, both for boys and girls (Loukas & Pasch, 2013), but did not contribute to social anxiety over time for older adolescents (Siegel et al., 2009; Storch et al., 2005). In addition, although some studies suggested that the association between relational victimisation and social anxiety was consistent across genders (Hamilton et al., 2013, 2016), others found that relational victimisation placed girls at increased risk of developing social anxiety during adolescence relative to boys (Ranta et al., 2013; Siegel et al., 2009; Storch & Masia-Warner, 2004).

Research has shown that while low peer acceptance predicted social anxiety in adolescence, its effects were not unique to girls (e.g. Grills-Taquechel et al., 2010). Adolescents who experienced higher levels of peer acceptance had lower levels of social anxiety, which indicates that peer acceptance may serve as an importance protective factor against the development of social anxiety in boys and girls. Research on the role of peer support was also mixed. While two studies found that peer support did not predict social anxiety over time (Grills-Taquechel et al., 2010; Tillfors et al., 2012), others found that peer support was negatively associated with decreased social anxiety across both genders (Cavanaugh & Buehler, 2016). However, research found that this association was stronger for girls than boys, with girls reporting higher levels of support from their friends, as well as increased social anxiety (La Greca & Lopez, 1998). Even when controlling for depression, this negative correlation was found to remain significant (Hutcherson & Epkins, 2009). Peer support may therefore help to protect adolescent girls from the development of social anxiety by reducing loneliness and distress. Furthermore, research suggested that friendship support may have a broader impact on girls' social anxiety than boys (La Greca & Lopez, 1998) and, where they experienced a decline in classmate support, girls were again placed at increased risk (DeWit et al., 2011).

Although the research in this review found a significant negative association between friendship quality and social anxiety, evidence on gender differences was mixed. While some studies found no significant difference (e.g. Flanagan et al., 2008), others reported that a lack of close friendships significantly predicted social anxiety in adolescent girls but not boys (La Greca & Lopez, 1998). In addition, whereas negative friendship qualities were found to be consistent across genders, positive friendship quality was significantly and negatively associated with social anxiety in girls only (Greco & Morris, 2005). Girls with low levels of peer acceptance were found to be at increased risk of developing social anxiety when their friendships were high in negative friendship qualities (Greco & Morris, 2005). Therefore, although positive and close friendships may serve as a protective factor, research has found that where friendships are lacking or are characterised by negative qualities, girls may feel more isolated and be at greater risk of developing social anxiety.

As friendship quality was significantly associated with levels of social anxiety, this may also account for why being selected as a friend was found to be an important protective factor for girls. Receiving fewer friendship nominations was found to be a significant predictor of social anxiety over time, with gender found to moderate this relationship; girls who were selected as friends had a reduced likelihood of experiencing increased social anxiety (Van Zalk & Van Zalk, 2015). This suggests that adolescents with smaller friendship networks are at increased risk of developing social anxiety. As girls typically have smaller friendship groups than boys, this could help account for the importance of friendship on the development of social anxiety in girls, as well as the increased impact when they encounter difficulties in these relationships.

This review of the literature provides key implications for wider practice. A number of different peer-related factors have been discussed which have a significant association with social anxiety in adolescent girls, including peer acceptance, friendship quality, peer support and victimisation. Research indicates that proactive and preventative intervention programmes are needed to help protect young people from the development of social anxiety by increasing their social interaction skills and improving the quality of their peer relationships. Evidence suggests that interventions are needed that promote positive friendship experiences, while also providing girls with problem solving skills to help them manage and resolve negative friendship experiences.

In addition to providing direct one-to-one or small group intervention programmes, it is also important to work at a systemic level by raising awareness of these key risk and protective factors in schools. As pre- and early adolescence is a time of particular risk for

the development of social anxiety, it is essential that school staff are able to recognise girls who may be at increased risk due to limited close friendships, negative friendship experiences or high relational victimisation. Given that research has found that girls who experience relational victimisation at age 15 have a sixfold increase in risk of developing social anxiety by age 17 (Ranta et al., 2013), this demonstrates the importance of implementing anti-bullying programmes and raising the awareness of relational bullying in girls, including “friendship manipulation or social exclusion” (Hamilton et al., 2013, p.334).

1.4.1 Limitations and implications for future research

One significant limitation of the research in this review was the reliance on self-reported measures of social anxiety and peer relationships, which could be subject to reporter bias (Hamilton et al., 2013; Storch, Brassard, et al., 2003) and inflated findings resulting from shared method variance (Loukas & Pasch, 2013; Storch & Masia-Warner, 2004; Storch et al., 2005; van der Ploeg et al., 2015). Although it has been suggested that internal states of anxiety may not be apparent to outside observers (Siegel et al., 2009) and that self-reports may be the most accurate form of measurement (Tillfors et al., 2012), future research would likely benefit from supplementary methods, such as observations, interviews and parent-report, to provide further data for triangulation.

Another limitation of many of the studies included in this review was the cross-sectional design of the research. Although this design can provide an indication of significant associations between a wide variety of variables, it does not provide any indication of the direction of the effect (e.g. Hutcherson & Epkins, 2009; La Greca & Lopez, 1998). Therefore, although many of the cross-sectional studies found that peer factors were significantly correlated with increased social anxiety, it is impossible to determine the extent to which peer variables contribute to the development of social anxiety. While longitudinal studies allow for the exploration of causal pathways, insufficient time points may be more prone to error, and limit the examination of interaction effects between variables (Grills-Taquechel et al., 2010; Loukas & Pasch, 2013). Future longitudinal research should therefore explore the development of social anxiety over a longer timeframe but with more frequent sampling.

It is also apparent from the studies included in this review that a considerable amount of the research was conducted within the USA. Although this can provide a heterogeneous sample of participants, many of the studies included predominantly Caucasian participants

from middle-class socio-economic status backgrounds (e.g., Greco & Morris, 2005; Storch, Brassard, et al., 2003). This may limit the generalisability of findings and suggests that further research is required in more ethnically and socially diverse populations, as young people within these populations may be exposed to greater risk factors (e.g. discrimination) (Cavanaugh & Buehler, 2016). In addition, as the studies in this review relied on community-based populations, it is possible that young people who experienced higher levels of distress may have been less willing to participate in the research (Flanagan et al., 2008). Furthermore, in one study, participants in the highest 10% of scores on measures of social anxiety were invited to participate in an intervention and were thus excluded from the research (Storch et al., 2005).

As the studies included in this review used a wide range of measures of peer relationships, this made it difficult to compare findings across research. Although some measures were administered in full, many were only partly administered or were modified for use. While studies frequently reported on internal consistency, it is possible that the modifications may have affected the test-retest reliability and validity of the measures. Even where studies reported test-retest reliability, such as for measures of social anxiety, this was often from previous research and only valid when the measure had not been amended.

Furthermore, one limitation of this review is that the search terms were identified solely by the author based on initial reading in the field and were kept relatively broad so as to locate relevant studies. It is possible that particular risk or protective peer factors for the development of social anxiety might have been overlooked due to the search terms used. In addition, the articles were screened based on the inclusion and exclusion criteria developed by the author alone. As only peer reviewed journals were included in the search, this may have resulted in the exclusion of research dissertations or other sources of literature relevant to the research question. It is also possible that as the studies were filtered by language and were required to be written in English, this may have excluded studies from more diverse cultures and non-English publications.

Finally, another potential limitation of this review is that although the focus was on the development of social anxiety in adolescent girls, the research primarily involved community-based samples of participants rather than clinical populations with a diagnosis of SAD. It is possible that the development of below threshold social anxiety is different to that of SAD, and that girls with SAD are exposed to unique risk factors. In addition, the research in this review was of a quantitative nature, reflecting the wider research in this

field. Therefore, future research would likely benefit from the use of qualitative or mixed method approaches to investigate the perspective of young girls who are identified as being at risk of developing social anxiety.

1.4.2 Conclusion

Following a systematic search of the literature, this review has explored the role of peer relationships in the development of social anxiety in adolescent girls. The literature has indicated that there are a number of interacting peer-related risk and protective factors that influence the development of social anxiety. Although findings were largely mixed, several risk factors were common across boys and girls, including peer acceptance, peer support and victimisation, while others placed girls at increased risk. These included limited close friendships, negative friendship experiences and relational victimisation. The review also highlighted the importance of friendship as a protective factor, for adolescent girls, in the development of social anxiety. In attempting to further our understanding of peer-related risk factors, this review has indicated that frameworks could be developed to capture these generic and gender-specific risks, and has considered the implications for future research and practice.

Chapter 2: Empirical Paper

‘They’re noisy and I don’t like people’: Understanding the Experience of Social Anxiety in Adolescent Girls with Autism Spectrum Disorders

2.1 Introduction

Autism Spectrum Disorder (ASD) is a collective term used to describe a group of neurodevelopmental conditions characterised by persistent deficits in social communication and interaction, as well as restricted and repetitive patterns of behaviour, activities or interests (American Psychiatric Association, APA, 2013). Prevalence rates for ASD in UK school populations have been found to be approximately 157 per 10,000 children, with a high male-to-female ratio of 4:1 (Baron-Cohen et al., 2009). Recently, it has been suggested that the gender ratio may be lower than previously indicated, with a ratio of 2.3:1 in adolescent populations (Rutherford et al., 2016). Young people with ASD are reported to be at increased risk of developing associated mental health difficulties (Romero et al., 2016), with anxiety a common concern during childhood and adolescence (White, Oswald, Ollendick, & Scahill, 2009). Research has found that children with ASD experience higher levels of anxiety than their typically developing peers (Farrugia & Hudson, 2006; Gillott, Furniss, & Walter, 2001) and, although study estimates vary from 11% to 84% (Kerns & Kendall, 2012; White et al., 2009), it has been suggested that approximately 40% of children and adolescents diagnosed with ASD may meet the criteria for a co-occurring anxiety disorder (van Steensel, Bögels, & Perrin, 2011).

Children with ASD have been found to score higher on measures of social anxiety than their typically developing peers (Melfsen, Walitza, & Warnke, 2006). While estimates indicate that social anxiety occurs in approximately 9% of the adolescent population (Kessler et al., 2012), this compares with estimated prevalence rates of around 17% in young people with ASD (Kerns et al., 2014; van Steensel et al., 2011). Research has found that Social Anxiety Disorder (SAD) is the third most common anxiety in young people with ASD, following specific phobia and obsessive compulsive disorder (van Steensel et al., 2011). SAD is described as an intense fear or anxiety of social situations in which an individual may be negatively evaluated or scrutinised by other people (APA, 2013). Although elevated social anxiety is a relatively common response to social situations, such as speaking or performing in front of other people, only in cases where it is persistent and

causes a significant level of distress to the individual is it likely to result in a diagnosis of SAD. Where SAD is diagnosed, it is typically characterised by the need to avoid or endure social situations that cause intense fear or anxiety.

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; APA, 2013) specifies that, in order to meet the criteria for diagnosis of SAD, the fear must not be better explained by the symptoms of another disorder. In the case of autism, where there is considerable overlap between the symptoms of social anxiety and ASD, this makes diagnosis more challenging. While a diagnosis of SAD requires that an individual's fear has a significant impact on their everyday life, such as avoiding social situations, a diagnosis of ASD is based on persistent deficits in social communication and interaction, which may lead an individual to avoid initiating or responding to social interactions. Although these symptoms overlap, dual diagnosis of ASD and SAD is possible due to differences in the underlying cause of the behaviour.

Social anxiety emerges in late childhood and throughout adolescence (Beesdo, Knappe, & Pine, 2009) and has a median age of onset of 13 years (APA, 2013; Kessler et al., 2005). While typically developing children report a decrease in social anxiety as they get older, research has found a different developmental pattern in children with ASD, with older children reporting increased levels of social anxiety (Kuusikko et al., 2008). One possible explanation for this finding is that children with ASD experience a delay in their social and emotional development and, as they get older, they become more aware of their social difficulties leading to increased withdrawal and social anxiety. This is consistent with the developmental pathway to social anxiety put forward by Bellini (2006), which suggested that a child's temperament, characterised by heightened physiological arousal, places them at increased risk of social withdrawal as they are likely to become overwhelmed by social interactions. Social withdrawal provides young people with ASD with fewer opportunities to develop their social skills and, as a result, they are more likely to experience negative peer interactions and are at increased risk for the subsequent development of social anxiety.

Different models have been proposed to account for the development of anxiety in ASD. A recent theoretical model (Figure 3) was proposed by Wood and Gadow (2010) to account for autism-specific pathways to anxiety in ASD. They suggested that the core symptoms of ASD could act as potential sources of stress when the expression of these

symptoms was in conflict with social expectations or led to a negative response from others. The model proposes that ASD-related stressors (including social confusion and unpredictability, peer rejection and victimisation, prevention of repetitive behaviours, and aversive sensory experiences) could promote anxiety and thus contribute to increased social avoidance, ASD symptom severity, behaviour problems or personal distress. While one pathway occurs via increased negative affect, a risk factor for the development of anxiety disorders in typically developing populations, the second autism-specific pathway occurs when social confusion and rejection lead to increased social anxiety.

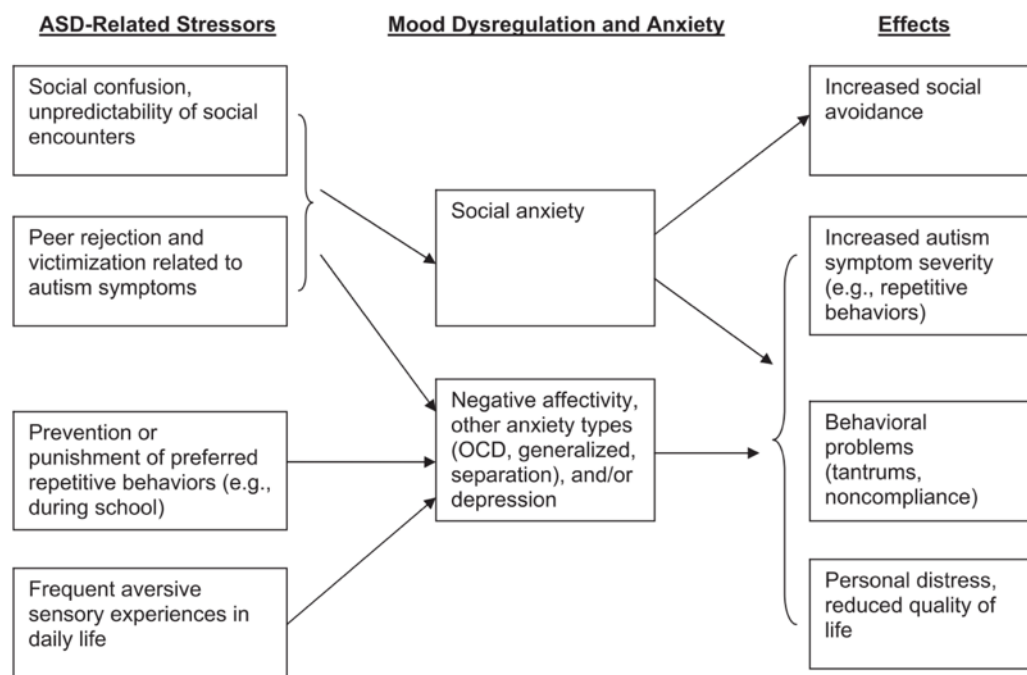


Figure 3. Hypothetical model of anxiety in ASD (Wood & Gadow, 2010)

A second cognitive model, Intolerance of Uncertainty (Rodgers, Glod, Connolly, & McConachie, 2012), is based on work on behavioural inhibition in anxiety and provides a framework for the development of anxiety in ASD. Intolerance of Uncertainty (IU) is defined as a negative emotional, cognitive or behavioural response to unknown situations (Buhr & Dugas, 2009). Children with ASD experience higher levels of IU than their peers, and this has been found to mediate the relationship between ASD and anxiety (Boulter, Freeston, South, & Rodgers, 2014). Two key factors are believed to underpin this construct including the desire for predictability, a dislike of unexpected events, and an ‘uncertainty paralysis’ defined as a ‘freeze’ response when faced with uncertainty (Berenbaum, Bredemeier, & Thompson, 2008; Birrell, Meares, Wilkinson, & Freeston, 2011). Although these factors are closely related to core traits of ASD, including the need or preference for sameness and routine, and difficulty coping with change, further research has found that IU

is associated with social anxiety in typically developing children (Hearn, Donovan, Spence, & March, 2017) and adults (Boelen & Reijntjes, 2009; Carleton, Collimore, & Asmundson, 2010; Counsell et al., 2017).

Although models of anxiety in ASD have been proposed, little research has been conducted to explore gender differences in the developmental pathways of anxiety in this population. In typical development, gender differences exist such that girls are at increased risk of developing anxiety disorders than boys (Essau et al., 2014). Increasingly, there is some understanding that expression of symptoms of ASD may differ between boys and girls, in that girls demonstrate milder repetitive and stereotyped behaviour than boys (Mandy et al., 2012) and greater ability to engage in complex imitation (Hiller, Young, & Weber, 2016). Girls with ASD have been found to demonstrate a stronger desire to be liked by their peers (Hiller et al., 2016), suggesting that they are more likely to engage in mimicking behaviour and are less likely to be identified as having difficulties with social understanding. Researchers have also found that girls may be diagnosed with ASD at an older age than boys (Begeer et al., 2013), suggesting that they are more likely to be missed in early childhood and less likely to receive social skills interventions. One possible explanation is that girls are better able to hide their social communication difficulties, and engage in socially acceptable behaviour, thus ‘camouflaging’ their ASD symptoms (Attwood, 2007; Dean, Harwood, & Kasari, 2016; Gould & Ashton-Smith, 2011).

Research has also reported gender differences in the social motivation of adolescents with ASD, with girls demonstrating similar levels of social motivation to their non-autistic peers while boys report less social motivation than girls with and without ASD (Sedgewick, Hill, Yates, Pickering, & Pellicano, 2016). In a recent qualitative study exploring how adolescent girls aged 11 to 17 years live with and manage their autism, Cook, Ogden and Winstone (2017) similarly reported that girls were motivated to develop and maintain friendships, and that they would often engage in masking behaviours in order to manage their social difficulties. However, as girls with ASD have been found to experience more relational conflict than their non-autistic peers (Sedgewick et al., 2016), this may place them at risk of social neglect or rejection, and subsequent development of social anxiety.

Consistently, adolescent girls with ASD are at increased risk of presenting with internalising behaviours relative to boys with ASD and typically developing girls (Solomon, Miller, Taylor, Hinshaw, & Carter, 2012). In a recent review of the literature, Lai, Lombardo, Auyeung, Chakrabarti and Baron-Cohen (2015) found that girls with ASD

more frequently reported co-occurring internalising or social difficulties, while boys reported more externalising difficulties. This is supported by May, Cornish and Rinehart (2014) who, in their study of gender differences in ASD and anxiety, found that while boys with ASD showed more hyperactivity, girls both with and without ASD had more symptoms of social anxiety. It is possible that as adolescent social relationships increase in complexity, girls with ASD may be at increased risk of general mental health difficulties, and social anxiety in particular. In a qualitative study exploring the experiences of adolescent girls with ASD, Cridland, Jones, Caputi and Magee (2014) used semi-structured interviews with mother and daughter dyads and found that girls experienced unique difficulties developing and maintaining friendships with neurotypically developing peers. The authors suggested that while imitation skills may be sufficient for maintaining friendships in early childhood, adolescent female relationships require more complex social-emotional skills, including emotional support and problem-solving, that girls with ASD typically find more difficult to navigate.

Although previous studies have explored girls' experiences of social relationships and difficulties through multiple perspectives, research indicates that there is a low degree of consistency between informants' reports of children's emotional and behavioural difficulties (Achenbach, McConaughy, & Howell, 1987). Parents of children with ASD are more likely to report higher ratings of anxiety in their children, including social anxiety, than their children self-report (Blakeley-Smith, Reaven, Ridge, & Hepburn, 2012; Gillott et al., 2001). This finding led Gillott et al. (2001) to suggest that, possibly due in part to difficulties with introspection and social communication in ASD, parents may have greater insight into their children's social anxiety.

In schools, researchers have suggested that girls with ASD may be under-recognised as having anxiety, as teachers report more externalising behaviour and social problems in boys with ASD (Mandy et al., 2012). However, Hiller et al. (2016) also found that teachers reported fewer concerns about girls with ASD than the girls' parents, suggesting that girls may present differently in home and school environments. The Attribution Bias Context (ABC) Model, proposed by De Los Reyes and Kazdin (2005) is a theoretical framework developed to account for informant discrepancies in clinical research. It suggests that while a variety of factors could account for informant discrepancy including child characteristics and parental mental health, discrepancies between teacher and parent perspectives are likely to be exacerbated by observations of the child in differing contexts. Thus, while it is not unusual to have low correlations between informant ratings of anxiety, it is important

to gather these multiple perspectives to gain greater understanding of the experience of anxiety in children and young people across multiple contexts.

Although the empirical evidence thus far suggests that adolescence is a sensitive period in the development of social anxiety in girls with ASD, there remains a lack of understanding of their experiences, particularly in the school environment. While models have been proposed to account for anxiety in ASD, it is not yet known whether these are consistent with girls' experiences. The lack of empirical research in this area also means that there is little to inform the assessment of social anxiety disorder in adolescent girls with ASD, meaning that they are at risk of being under-recognised.

The aim of the present study was to develop an understanding of the experience of social anxiety in adolescent girls with autism. By gathering information from multiple perspectives, including that of the young person themselves, their parents and teachers, this study addressed the following research question:

What are the experiences of social anxiety in adolescent girls with ASD, who attend mainstream secondary school provision, and how are these perceived by their parents/carers and teachers?

2.2 Method

2.2.1 Methodological approach

This study adopted a qualitative approach, using a multiple-case design, to understand the experience of social anxiety in adolescent girls with ASD. Data were collected using semi-structured interviews and analysed using an inductive thematic analysis, where themes were grounded in the data. This flexible method is considered to be independent of theoretical and epistemological positions (Braun & Clarke, 2006) and can be used to identify and analyse patterns of content and meaning in qualitative data across a variety of approaches (Willig, 2013). In this study, Interpretative Phenomenological Analysis (IPA; Smith, Flowers, & Larkin, 2009) was used as a guiding approach, as it first aims to understand the lived experiences of individuals, through a process of joint construction between participant and researcher. Due to the multiple perspectives obtained, this enabled participants' experiences to be considered initially at an individual level, before searching for patterns across each triad.

The ontological position of this research is founded on the assumptions of social constructionism in that it is based on the view that the social world, or social reality, is actively constructed by social actors as part of an ongoing process (Bryman, 2015). Accordingly, the way in which we understand the world is influenced by our social constructs. This study was also underpinned by an interpretivist epistemology in that it valued understanding over explanation, and was concerned with making sense of the world from the perspective of the individual and the meanings they ascribed to their experiences. As this study aimed to understand the experiences of social anxiety from the perspectives of adolescent girls, their parents, and their teachers, an area that has not yet been explored, this led to the adoption of an inductive and phenomenological approach.

2.2.2 Participants

A purposive sample of four triads was recruited for this research from three mainstream schools in the South of England. Two schools had special units for young people with ASD enabling them to be taught separately within the unit. Each triad consisted of an adolescent girl aged 11 to 13 years diagnosed with ASD, her mother, and a member of school staff well-known to the child (Table 2).

The inclusion criteria specified that girls needed to be aged between 11 and 16 years, have a formal diagnosis of ASD, experience social anxiety as defined by the National Institute for Health and Care Excellence (NICE; 2013), and be attending mainstream secondary school. It was also stated that girls needed to be verbally able to talk about their experiences by answering questions around an ‘Ideal Classroom’ activity; this was confirmed by schools and parents. All girls had received a formal diagnosis of ASD according to either the International Classification of Diseases, 10th Revision (ICD-10; WHO, 1992) or the DSM-5 (APA, 2013), as confirmed by diagnostic reports. The study also stipulated that a parent and teacher, or Learning Support Assistant (LSA), would be recruited for interview. Girls were screened for social anxiety and only those scoring above the cut-off were invited to participate in the research.

Table 2 *Background Information for Each Triad Including Girls' Details*

Triad	School	Year	Girls' age	Background information
1. Amber, mother, LSA	Mainstream with attached unit	8	12 years	<ul style="list-style-type: none"> • Diagnosed with ASD at age 10. • Initially diagnosed with Global Developmental Delay as a young child. • Attends lessons in both the mainstream school and support centre. • Receives ongoing support from LSAs.
2. Ellie, mother, LSA	Mainstream with attached ASD unit	8	13 years	<ul style="list-style-type: none"> • Diagnosed with ASD at age 11. • Referred to Child and Adolescent Mental Health Services at the age of six due to self-harm behaviour, and put on the waiting list for an ASD assessment. • Rarely attends lessons in the mainstream. • Fully supported by LSAs in the unit.
3. Georgia, mother, SENCo/teacher	Mainstream	8	13 years	<ul style="list-style-type: none"> • Diagnosed with ASD at age 11. • Recently started at her current school having moved four months earlier due to a lack of support, but is beginning to school refuse. • Attends all her lessons in mainstream and does not currently receive support from an LSA.
4. Isabelle, mother, LSA	Mainstream	7	11 years	<ul style="list-style-type: none"> • Diagnosed with ASD at age 7. • First diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) at the age of 5. • Attends all her lessons in the mainstream school.

2.2.3 Measures

The Screen for Child Anxiety Related Emotional Disorders – Revised (SCARED-R): Parent and child versions

The SCARED-R (Muris, Merckelbach, Van Brakel, & Mayer, 1999) is a 69-item measure of anxiety which includes a seven-item social anxiety subscale (Appendix F), with items matched across the parent and child-report versions. Children and parents are asked

to read each statement and indicate how frequently they, or their child, have experienced a given symptom during the last three months. Responses are scored on a three-point likert scale of: ‘never or almost never true’, ‘sometimes true’, and ‘often true’. Internal consistency for the social anxiety subscale has been found to be adequate, with Cronbach’s alpha of .79 (Muris & Steerneman, 2001). Although correlations between the social anxiety subscales on the SCARED and Spence Children’s Anxiety Scale were found to be modest ($r = 0.49$, $p < 0.001$; Muris, Schmidt, & Merckelbach, 2000), no information is available on the validity of the revised seven-item social anxiety subscale.

Only the seven items from the social anxiety subscale were administered (e.g. ‘It is hard for me to talk with unfamiliar people’). By summing the individual item scores, the social anxiety subscale yields a maximum score of 14; scores above the cut-off of seven (Muris et al., 2000) indicate the presence of social anxiety. Participants were invited for interviews only if scoring above seven on either the parent or child questionnaire.

Semi-structured interviews with parents and teachers

Semi-structured, face-to-face, interviews were carried out with all participants, which were designed to last between 30 and 60 minutes. The interviews followed either the parent or teacher interview schedule (Appendix H), which included the same open-ended questions worded according to the adults’ relationship with the child. Follow-up questions and probes were used to explore participants’ responses in more depth. The length of interviews ranged from 37 minutes to 1 hour 14 minutes.

Semi-structured interviews with girls

Semi-structured interviews with the girls with ASD were based around ‘Building the Ideal Classroom’ (Morgan Rose, 2014), an activity using Lego (Appendix H) that stems from Personal Construct Psychology (Kelly, 1955). This technique is adapted from Drawing the Ideal School (Williams & Hanke, 2007) and Drawing the Ideal Self (Moran, 2001) and involves asking children to build the kind of class they would most like to have (ideal classroom) and least like to have (non-ideal classroom). Questions were asked around this activity to explore the girl’s experience of social anxiety (Appendix G). A drawing of the classroom was completed with notes written alongside; photographs were taken of the completed classrooms (Appendix H). The average duration of the interview was 60 minutes (range 47-78 minutes).

2.2.4 Procedure

Ethical approval was gained from the ethics committee and Research Governance Office at the School of Psychology, University of Southampton, prior to the commencement of the study (ERGO-ID: 19489, 6th July 2016; Appendix I).

Mainstream secondary schools across two counties in the South of England were contacted by the researcher, via email, and invited to participate in the research. Information sheets (Appendix J) about the study were emailed to Headteachers and, where possible, to Special Educational Needs Co-ordinators (SENCoS). Schools were contacted two weeks later by telephone or email to enquire whether they were interested in participating in the research and whether they had children who met the inclusion criteria; ten schools were identified at this stage. Letters, information sheets and consent forms (Appendix K) were then sent, via the school, to parents of adolescent girls with ASD, alongside the parent-report version of the SCARED-R anxiety screener. Parents were asked to talk to their child about the study and contact the researcher directly if they and their child were willing to participate (n=6). At this point, they were asked to return the parent-report screener only, which was scored for eligibility. Five out of six scored above the minimum cut-off. However, as one was returned after the cut-off date for recruitment, only four girls were invited to interviews. Parents of the two remaining girls were contacted by email, or phone, to thank them for their interest in the research. Following the recruitment of parents and girls, an information letter and consent form (Appendix L) was sent to an identified member of school staff who was well-known to the child, as identified by the SENCo.

Semi-structured interviews were conducted individually with mothers, teacher/LSAs and adolescent girls with ASD. Interviews for each triad were conducted back-to-back in a room at school, following a pre-arranged schedule. Girls were prepared in advance by their parents and school staff, and given the choice of having a familiar adult present during their meeting. While three girls chose to have their mother present, one girl chose an LSA. For the parent and teacher interviews, participants were asked to read the information sheet and provide written consent prior to the commencement of the interviews. In addition to obtaining parental consent, girls were asked to provide written assent (Appendix K) after reading an information letter and having the activity explained to them by the researcher. The self-report anxiety screener was also administered prior to the commencement of the

interview. Although the girls already met the inclusion criteria based on parent-report, all girls also scored above the cut-off via self-report of anxious affect.

All participants were informed of their right to withdraw from the research at any time. Following the interviews, participants were debriefed and given a copy of the relevant debriefing statement (Appendix M). Interviews were audio-recorded and later transcribed verbatim (Appendix N), with each interview fully anonymised. Following the completion of transcription, all audio-recordings were deleted.

2.2.5 Data analysis

The process of data analysis incorporated elements of both the six-step framework for IPA outlined by Smith et al. (2009) and the guidelines to thematic analysis developed by Braun and Clarke (2006). Details of the data analysis process are shown in Table 3. Stages 1 through 4 were based primarily on the first four steps of IPA and were committed to understanding individual experiences and perceptions, while stages 5 to 7 involved broader thematic analysis. The use of an IPA approach in the early stages enabled detailed analysis of the experiences of each individual to be conducted, prior to analysing data across a triad. It also supported the analysis of the Ideal Classroom activity completed by the girls, which required a high level of interpretation of their experiences by the researcher. By gaining a greater understanding of the different perspectives within each triad prior to looking for commonalities across the transcripts, this facilitated the broader analysis of themes across all participants.

Table 3 *Stages of Data Analysis Process*

Stage	Details of process
1. Familiarisation through immersion in the data	<ul style="list-style-type: none"> • Audio recordings were listened to and transcribed. • Transcripts were read and re-read. • Initial observations were noted down to focus on the data.
2. Initial noting	<ul style="list-style-type: none"> • Comments about the data were written in the right-hand column, including descriptive, linguistic and conceptual comments. Key points of interest were highlighted or underlined. • Line-by-line analysis of the data was carried out across an entire interview.
3. Searching for connections	<ul style="list-style-type: none"> • By searching for connections between notes made in step 2, emergent themes or 'codes' were developed to reflect the participants' words and researcher's interpretation.

	<p>These were written down in the left-hand margin.</p> <ul style="list-style-type: none"> • Emergent themes were typed up into a list using Microsoft Word, printed and cut out (Table 6, Appendix O).
4. Searching for connections across themes	<ul style="list-style-type: none"> • Emergent themes or codes were manually sorted, in order to search for themes across the data. This included processes such as abstraction (clustering), subsumption (emergent theme takes on higher level status) and polarisation (oppositional relationships). • This led to the development of themes and higher-level themes for each individual participant. Coded extracts were checked against each theme.
	<p>Steps 1 to 4 were then repeated for each participant.</p>
5. Searching for connections within triads	<ul style="list-style-type: none"> • Similarities and differences, and connections between themes, were searched for within a triad. • Thematic maps were created for each triad.
	<p>Step 5 was repeated for each triad.</p>
6. Searching for themes across the entire data set	<ul style="list-style-type: none"> • Patterns were searched for across all twelve participants, leading to the development of initial master themes and sub-themes. • Themes were checked against coded extracts of the data and an initial thematic map was created.
7. Reviewing and refining themes	<ul style="list-style-type: none"> • Themes were refined and named. • A final thematic map and coding frame was created. Descriptions, elaborations and examples were added to the final coding manual.

Transparency

In qualitative research, it is important to demonstrate the principle of transparency in the methods of data collection and analysis used (Yardley, 2000). In order to facilitate transparency, a worked example is provided which contains an extract of the transcript taken from Ellie's mother (P2; for initial noting see Appendix O) and the codes or themes that emerged from the data (Table 4).

Table 4 *Example of Quote and Emergent Themes for Stage 3 of Data Analysis*

Quote example	Code/emergent theme
Erm, and we had a lot of this and then there was basically we got to the end of year 4 and Ellie and Katie's relationship broke down. I, I personally feel that Katie had got completely fed up of this child who would literally yes do everything she said but never came up with anything herself, and if Katie wanted to go off and do something else that didn't involve Ellie, Ellie couldn't cope and then was this emotional tie on Katie, and at that point the relationship broke down and so did Ellie, because Ellie had, had this complete support mechanism and has now had turned into a child that couldn't cope and we went through horrendous times, horrendous self-harming, huge anxiety issues to the point of becoming a school refuser. (P2: Lines 46-55)	Poor social understanding of friendships Negative experience of friendship difficulties Loss of friendship Loss of peer support Inability to cope School refusing

These emergent themes were the result of stages 1 to 3 of the data analysis process. During stage 4, the emergent themes were collated (Appendix O) in order to search for themes across the interview transcript (Table 5).

Table 5 *Example of Themes and Higher-level Themes Developed from Emergent Codes During Stage 4 of Data Analysis*

Emergent theme / code	Theme (individual level)	Higher-level theme (individual level)
Poor social understanding of friendships	Poor social understanding	Challenges to social relationships
Negative experience of friendship difficulties	Negative peer experiences	
Loss of friendship		
Loss of peer support		
Inability to cope	Lack of emotional regulation	Managing anxiety
School refusing	Coping strategies	

After completing this process for all three members of the triad, themes and higher-level themes were compared. This led to the development of a thematic map for triad 2 (Figure 6, Appendix P). Following the completion of all four triads, patterns were searched for across all participants, with the following initial master themes identified: managing anxiety, need to fit in, challenges to social relationships, peer experiences, role of school and relationship with adults (for initial thematic map see Figure 9, Appendix P). During the final stage of analysis, themes were reviewed and revised. For example, the subthemes within coping strategies were refined to become avoidance and escape, with an overarching theme of coping with social situations. As proactive strategies were considered by the researcher to be a pre-emptive form of coping, this formed a second subtheme. A final thematic map and coding frame were developed, with the latter drawing on examples from across all participants (Appendix Q). Throughout the process of data analysis, a reflexive log was written containing initial thoughts regarding the data, decisions made, and potential themes.

2.3 Results

Although the process of data analysis provided an in-depth understanding of the experiences of each individual participant, due to the amount of data obtained, only the results of the latter analysis across triads is reported in this paper. However, as this was based on the analysis of individual experiences, aspects of these are incorporated within the broader thematic analysis. Analysis of the data from all 12 participants indicated four master themes including: Barriers to Social Situations, Quality of Relationships, Coping with Social Situations, and Desire to 'Fit In'. These closely interrelated themes (Figure 4) are discussed, with quotes used to illustrate.

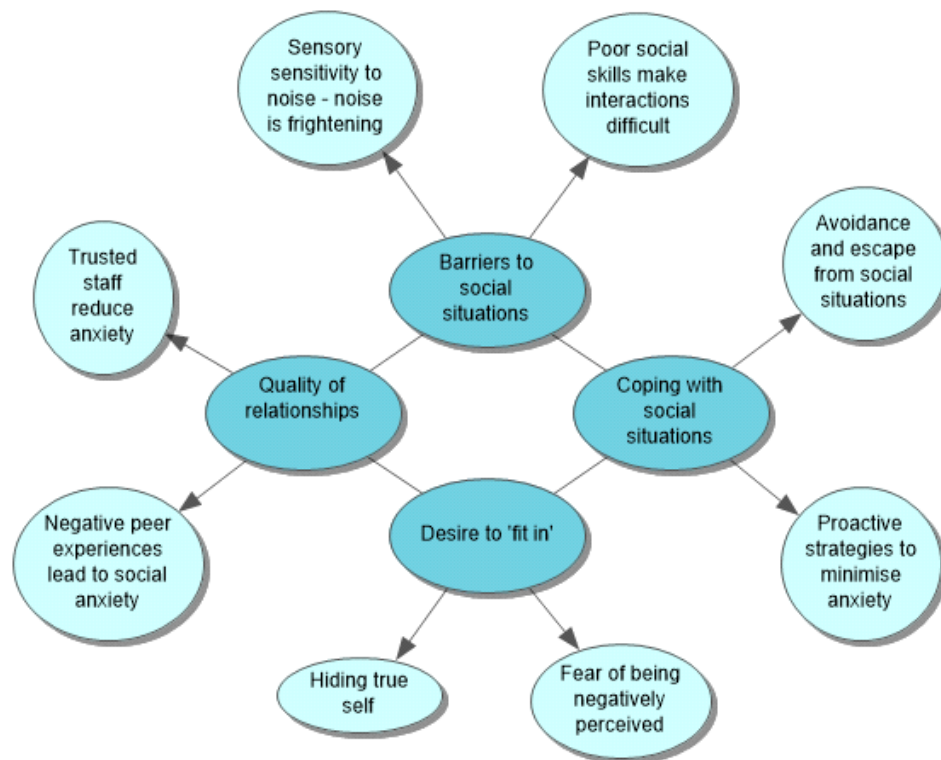


Figure 4. Final thematic map showing four master themes of the thematic analysis

Theme 1: Barriers to social situations

Different barriers to social situations were frequently discussed by participants as impacting on the girls' everyday interactions with other people. It was evident that two areas were of particular concern including their **sensory sensitivity to noise** and **poor social skills**, but that the degree of impact varied across triads.

Sensory sensitivity to noise – 'noise is frightening'

Although all four girls were described by at least one member of the triad as being sensitive to noise, this was most frequently discussed by three of the girls, who perceived

people as a source of noise they found “scary” (G2: Line 407) and “frightening” (T1: Line 300). For Georgia, who described the feeling of being “worried about how noisy it’s going to be” (G3: Line 733), even everyday classroom activities like “when we’re allowed to talk” (G3: Line 429) could become too noisy for her. During the ideal classroom activity, there was a contrast between the girls’ ideal and non-ideal classrooms, with the former providing a calm and quiet environment, while the latter was often busy, noisy and sometimes cramped. While Amber and Georgia described students in their non-ideal classrooms as “messaging around” (G1: Line 407; G3: Line 768) and distracting them from doing their work, Ellie stated that students were being noisy by “jumping up and down and just being horrible” (G2: Line 548). This suggests that they experienced the classroom environment as “chaos” (G1: Line 545), where no one was in control, which impacted on their ability to learn:

The trouble is in my classroom at the moment is, I can’t, there’s too many people in there. I can’t concentrate. (G3: Lines 394-395)

Whereas the girls’ non-ideal classrooms indicated that students themselves were noisy, both Georgia and Amber’s LSAs described anxiety-provoking noise as coming from teachers. This might occur, for example, when the classroom teacher responded by shouting, such as in response to misbehaving students:

... it’s people that shout or are loud or could come across as being a bit frightening then it will make her feel anxious. (T1: Lines 299-300)

Participants further discussed how unfamiliar teachers, or peers, increased the girls’ anxiety by acting as an unpredictable source of noise. Although noise was infrequently discussed by Triad 4, Isabelle’s mother stated that Isabelle did not like it if it was “too loud” (P4: Line 272) and, like the other girls, clearly preferred teachers who spoke quietly:

...she came home so excited saying oh it’s the first time she’s ever had a teacher that talks quietly. It was all she ever wanted in a teacher, was a teacher that spoke quietly. (P4: Lines 337-340)

...she’s more of a quietly spoken person...doesn’t tend to raise her voice you know, so for Amber, obviously for her that’s her favourite type of teaching. (T1: Lines 297-299)

This indicates that teachers and peers were perceived as potentially overwhelming sources of noise and highlights the importance of a quiet classroom environment for

reducing girls' anxiety. However, their sensitivity to noise also made interacting with other people difficult *"to deal with"* (P1: Line 233), with Amber's mother explaining how conversations around her acted as an almost impenetrable and inescapable *"wall of noise coming at her"* (P1: Line 300). This suggests that in addition to finding the volume overwhelming, it may also be difficult to filter out background noise.

Poor social skills make interactions difficult

All four triads discussed how the girls' lack of social communication skills, and social understanding, impacted on their ability to interact with family and peers. Despite being socially motivated, the girls' mothers discussed an *"interesting contradiction"* (P1: Line 362) whereby the girls wanted to interact but found it difficult due to their poor social communication skills:

...she [Amber] finds sometimes that the conversation's just moving on too quickly, she might be here sort of talking about that and then suddenly someone is like oh yeah and what about this sort of thing, she can't make that jump as fast as everybody else can so she's still here and everyone else is over there so she just gets lost... (P1: 313-317)

Although Amber struggled to keep up with the 'flow' of conversations, her mother recognised how this was becoming more challenging with age as *"those social communication skills are changing so much"* (P1: Line 714). The girls' anxiety was often perceived by parents and teachers as being related to this lack of social skills, and the uncertainty of *"not knowing what to do when, and what to say when"* (T3: Line 101):

...it's also very confusing because there's no set guidelines on how to behave, who's going to be there, what she needs to say. (P4: Lines 176-177)

The use of the term 'guidelines' may indicate the ability to follow rules and procedures but, without these, the girls may not know how to interact. This was reflected in a statement by Isabelle's LSA, who explained that Isabelle lacked understanding of the back-and-forth nature of conversations and required others to initiate. This poor understanding of reciprocity was further discussed by Georgia's mother when explaining how this impacted on Georgia as a young child:

They won't play the things I want to play. They won't play it the way I want to play it and obviously now I know that's a trait. And that's been all the way through her school life. (P3: Lines 526-529)

While the girls' lack of social skills was described by two of the mothers as leaving their daughters' feeling excluded from conversations and more anxious, their ability to interact with similar peers, or with adult mediation, reduced their anxiety. Participants discussed how a structured and supportive environment facilitated the girls to overcome their anxiety:

...it's very mediated with adult supervision, that's easier for her as well to talk to her peers...and that lessens her anxiety. (T3: Lines 233-235)

In contrast with the other girls, Ellie's mother and LSA explained how Ellie's difficulty with interpreting facial expressions impacted on her desire to interact with other people:

...she works out people by that so if they don't smile, her perception is they don't like her. So those very first meetings for Ellie are so important for her to even judge. (P2: Lines 161-163)

The misinterpretation of facial expressions indicates that Ellie may perceive people as unfriendly, leaving her feeling “uncomfortable” (P2: Line 987) and unable to participate in typical everyday activities or engage within a school environment. Like Ellie's mother, her LSA frequently referred to the importance of first impressions stating “...we were all going round with frozen grins on our faces because we wanted to make her feel welcome” (T2: Lines 12-13).

Theme 2: Quality of Relationships

The theme quality of relationships was identified as it was present across all participants. This included discussion of how **trusted staff** reduced the girls' anxiety, while **negative peer experiences** led to social anxiety.

Trusted staff reduce anxiety

All four staff members discussed aspects of the girls' relationships with trusted staff, as well as three of the girls, and two parents. While Amber and Ellie appeared to value their relationships with LSAs, and made frequent references to the support they received during the school day, Amber also demonstrated a reluctant acceptance and understanding that the LSA “*might be late*” (G1: Line 597) arriving to her lessons. This contrasted with Georgia who had only recently started at her school, but had developed a close bond with her teacher/SENCo:

...if I do go by in passing and she'll see me, she sees me, she will ask me, for help, but I think that's very much to do with the fact that she knows me and she's got that relationship with me. (T3: Lines 336-338)

The need to 'know' staff was clearly discussed across all four triads, such as when Ellie explained that she found new teachers scary “‘Cause I don't know them” (G2: Line 281). This indicates that the fear of unknown people, including school staff, acted as a source of anxiety for the girls, but that the development of trusting relationships served as a protective factor:

I think with time and because she has built up trust in members of staff that take her over and look out for her, I think that's helped her overcome that a little bit as well. She probably still wouldn't choose to be in that atmosphere. (T1: Lines 234-235)

So they [teachers] give her something, she gives them something back. So when she feels that two way safe feeling then obviously she responds positively to it. (P2: Lines 914-916)

One factor that was considered important for the development of trusting relationships was that of staff understanding, with participants discussing how teacher understanding helped to reduce the girls' anxiety in school, and thus supported them to engage in lessons. While this was mainly discussed by parents or teachers, it was also reflected in a statement made by Georgia when talking about her favourite teacher:

I think she understands me, a bit more than everybody else and other teachers. (G3: Line 310)

Okay, so Mr Thomas is god in our world because he gets it and he gets her and, err, all Ellie's fears in lessons are taken away... (P2: Lines 126-127)

Although staff typically demonstrated a good understanding of the girls' needs, participants also portrayed a divide between mainstream and specialist unit staff. This was most clearly discussed by Ellie's LSA who used the term “*crippling*” (T2: Line 668) to emphasise the severe and disabling effect Ellie's anxiety had on her readiness to learn, as well as her access to mainstream lessons. While the unit was described as being “*like a second home*” (T2: Line 436), indicating that the staff may take on a caregiving role, mainstream staff were perceived as viewing Ellie as needing “*to get on with it*” (T2: Line 656). The importance of staff understanding was also demonstrated by Isabelle's LSA who, despite being hesitant about Isabelle's ability to 'tell' a trusted adult about any

problems, still described Isabelle as the active agent and placed the onus on her to seek support. Given the difficulties Isabelle had shown in expressing her feelings verbally, this could be particularly challenging:

She'd come into learning support and tell us...I think she'd tell us, I think. I think she's got to know us well enough now that she would tell us. (T4: Lines 182-185)

It was noted that all four girls had developed trusting relationships with adults in learning support, which may have provided an additional level of understanding of the girls' needs relative to other mainstream staff. This was articulated by Ellie when she explained how she still felt it was important for an LSA to be present in her 'ideal' classroom, even though she did not require their support academically.

Negative peer experiences lead to social anxiety

Negative peer experiences, such as peer neglect or victimisation, were directly discussed by all four triads, including all of the girls' mothers, two LSAs, and one girl (Isabelle). It was reported by three of the mothers that their daughters wanted to have friends, but that their limited friendship experiences had a negative emotional impact on the girls:

As I say she really wants to be sociable, she wants to have lots of friends and I think that one of her biggest sadnesses is that she doesn't have a lot of (.) friends and it's getting harder as she's getting older. (P1: Lines 526-529)

She says she wants friends...Even when she was in primary school she used to come home and say, nobody wants to play with me mummy. (P3: Lines 522-525)

While three of the girls, including Georgia, Ellie and Isabelle, were described as having experienced peer neglect or rejection at primary school, Amber's mother explained how Amber's negative peer experiences had occurred more recently, in the past few months, when she began losing her friends from her previous school. This sense of loss was discussed across three of the triads, with Ellie and Isabelle also experiencing the loss of friendships when at primary school. For Ellie, her mother explained how the negative experience of losing a friend in Year 4 may have triggered her social anxiety:

...at that point the relationship broke down and so did Ellie, because Ellie had, had this complete support mechanism and has now turned into a child that couldn't cope... (P2: Lines 51-53)

Although all four girls were described as having had negative peer experiences at some point in their childhood, two of the girls were further described as having been directly bullied by their peers:

...she felt she was being bullied by a mainstream child calling her names, saying oh here comes spastic and things like that. So she had a real fear of getting off the bus in the morning and walking in. (P2: Lines 725-728)

While the feeling of being “*personally targeted*” (T2: Line 70) left Ellie attributing blame internally, and struggling to make sense of why bad things happened to her, Isabelle clearly demonstrated the impact the bullying had on her feelings towards the perpetrator after being bullied at the start of Year 7 for “*an entire month*” (G4: Lines 342-343):

...Bradley just made me feel like arghh. Just arghhh. Angry, 'cause I just hate him. A lot. (G4: Lines 349-350)

These negative peer experiences may have left the girls feeling more vulnerable to social threats, thus increasing their social anxiety. This was described by Isabelle’s mother, who discussed her daughter’s negative peer experiences and her realisation that the real world may not be as nice as the “*lovely world that she exists in*” (P4: Line 24). However, despite their friendship experiences appearing quite limited, two of the girls discussed having the support of at least one peer in school.

Theme 3: Coping with social situations

Throughout their narratives, participants frequently talked about how the girls coped with social situations. This included the use of **avoidance and escape** strategies by the girls, and the role of mum, and school, in implementing **proactive strategies**.

Avoidance and escape from social situations

All the girls demonstrated the use of avoidance and escape as a way of coping with their anxiety, with avoidance including hiding, isolating themselves, and backing out of social situations in advance. For example, while Ellie indicated a preference for isolation in her ideal classroom through a physical barrier surrounding her so “*no one can come in*” (G2: Line 200), her LSA explained that she would frequently sit under her desk and read a book to avoid people. Although parents and school staff typically demonstrated an understanding of avoidance behaviour, this contrasted with Isabelle’s LSA who, despite

commenting that Isabelle did not avoid social situations, frequently described her as choosing to be “*all on her own*” (T4: Line 309).

Participants also discussed how the girls may be negatively reinforcing their anxiety through the avoidance of social situations. This was demonstrated by Georgia’s mother, who explained how Georgia would refuse to attend events when the build-up of anxiety became too much. She discussed a recent occasion when Georgia was planning to go out with her peers but explained “*She backs out because she’s so anxious about it*” (P3: Line 541-542). In contrast, other parents explained how they did not allow their daughters to avoid social situations and took a long-term view of their anxiety, perceiving it as an ‘invisible barrier’ that they have to “*push through*” (P2: Line 378):

...she has to be able to live in society and you may not want to, but we know you’re going to enjoy it when you are there so you have to learn to be brave and to face those fears... (P4: Lines 183-185)

By “*learning to take more risks*” (P2: Line 958) and “*be brave*” (P4: Line 185), this suggests that parents believed that, over time, the girls could make progress in managing their anxiety. Where the girls attended social gatherings, such as parties, they shared a common need to be able to escape the situation. This included the need to “*dip in and out*” (P1: Line 231) if things became too much, or being able to leave or hide in another room:

...in social situations she’ll remove herself and, yeah, she’ll be having lots of fun. Ah I’m having the greatest time. It’s like you’re actually in the next room to where everybody else is. Oh no, but it’s great fun. But you’re not with the party. Or she’ll be in the kitchen, hiding. (P4: Lines 266-270)

During the building of their non-ideal classrooms, three of the girls described the feeling of being trapped and unable to leave, while Isabelle avoided being in her non-ideal classroom entirely. For Amber, who demonstrated a clear desire to be able to escape the classroom, she recognised that this might not always be accepted by her teachers:

If I was to [escape], I would ask Mr Red if (.) if I could go to the toilet and sneakily just take my bag with me. (G1: Lines 558-559)

However, this need to ‘escape’ did not always mean physically removing themselves from the situation but also included becoming withdrawn or shutting down:

I think she always needs to feel like she has an escape option, whether that's just to go inside herself or to leave. So I think that's what is her biggest fear is that, is that feeling of being trapped, overwhelmed. (P1: Lines 393-396)

...equally if things happen in the village, she'll shut down, okay she'll shut down. And the other day she shut down so much [during a life skills lesson] they had to go and get a car and somebody from school to go and collect her... (P2: Lines 1020-1022)

Furthermore, participants frequently referred to learning support as a safe base the girls could escape to for down-time, at break and lunch:

It's helping her get through the day, I think. Knowing that she can go somewhere quiet and she doesn't want to be with all the big crowds and all the rest of it. (T4: Lines 89-91)

This suggests that without the refuge of learning support, they might find school a difficult experience to manage.

Proactive strategies to minimise anxiety

All four parents described their role in helping to plan and prepare for social situations in advance to help minimise the anxiety experienced by their daughters. Proactive strategies were frequently discussed as a way of reducing the unknowns about what was going to happen, with Ellie's mother describing the intense and foreboding nature of spontaneity, and the need to avoid it as much as possible:

The spontaneity in her life, you know spontaneity is hell for her, you know, doing things out of the blue, just just taking a risk and doing something and going somewhere. We just can't do it, you know. (P2: Lines 978-980)

Despite acknowledging the difficulty in coping with social anxiety because "it's constantly there" (P4: Line 503), participants discussed their use of a wide range of proactive strategies from arranging access to resources, such as comfort items, to talking through the details of situations in advance. For example, in order to help Amber manage her anxiety, her mother discussed how they helped Amber prepare for her role as a bridesmaid at a large family wedding:

...we did quite a lot of preparation with her here as well as at home and, she was nervous but she coped really well with it... (P1: Lines 226-228)

All four triads discussed the importance of preparing the girls for their transition to secondary school, with Isabelle's mother explaining how she had been planning this since Year 4:

...by the time she sort of started, she kind of knew her way around, she knew the staff from learning support, she knew where learning support was. (P4: Lines 382-383)

Within school, the proactive strategies ranged from interventions such as the Social Use of Language Programme for Georgia, to assigning key adults to the girls so that they were never physically on their own. While this support appeared to be sufficient for enabling three of the girls to manage within mainstream, Ellie's LSA described how their school strategies took a different form. For example, she explained that teachers were invited into Ellie's safe base to meet her first, and informed to "*make sure you're smiling*" (T2: Lines 211-212) so that neutral faces were not negatively interpreted. Parents and school staff also described the importance of adapting the support to meet the girls' individual needs:

...if we put an LSA in the class, the whole class is going to immediately think who is that LSA here for, so that's one of the other things that I was going to do but then, considered it and decided no. (T3: Lines 502-505)

Where support did not adequately meet their needs, this negatively impacted on the girls' anxiety. Amber's LSA explained Amber's anxiety in almost volcano-like terms, slowly building up until the pressure became too much:

You know not realising that it was causing a massive dread until she kind of you know blew. (T1: Lines 636-637)

Theme 4: Desire to 'fit in'

The final theme of desire to 'fit in' was evident across the four triads, and was found to be closely interlinked with the other themes. All four girls appeared to share an underlying worry about getting things wrong in front of their peers, or their **fear of being negatively perceived**, with Georgia and Isabelle being particularly concerned about standing out and the consequences this might have. For example, while Georgia was strongly affected by her worries about what people, especially boys, thought of her and her fear of "*drawing attention to me*" (G3: Line 816), Isabelle clearly demonstrated a fear of being embarrassed in front of her peers:

...if one person found out, they would tell their friends about it and they would tell their friends about it, and then then everyone they know will know that, will know, and I would just get so embarrassed. (G4: Lines 437-440)

For Isabelle, the consequences of getting a detention were described in an almost virus-like way, spreading through her peers until everyone found out what had happened. This embarrassment was also discussed by her mother, who explained how Isabelle's fear of getting things wrong in social situations may be linked with her poor social understanding:

I think it's the not understanding the situation and getting it wrong. She's terrified of getting it wrong, and being embarrassed about it, or doing the wrong thing because she constantly aims to please. (P4: Lines 80-82)

Although all four girls demonstrated a desire to 'fit in' with their peers, only the parents and teachers of the three Year 8 girls discussed their concerns about the girls' immaturity and the widening gap to their peers. For example, Amber, Ellie and Georgia were all described as being different to other girls their age, as they did not share the same interests as their typically developing peers:

...they're all into make-up and music and boys and this kind of stuff and Amber is just so far away from that that she's not on that level anymore. (P1: Lines 599-601)

I think when she is with people, particularly girls her age, she doesn't get them. She doesn't understand why they like the things that they do, makeup, handbags, boys. (T2: Lines 137-139)

While the girls themselves did not make reference to their sense of difference to their peers, they were all described as being aware of their differences, with this having an impact on their ability to fit in:

I think for her she does understand that it makes her different and that some things are more difficult for her and that she doesn't necessarily fit in... (P1: Lines 168-170)

Rather than interacting with other girls in school, participants reported that three of the girls instead preferred boys' company. For example, Amber's LSA indicated that Amber found it easier to interact with boys as they were "straight down the line" (T1: Line 492) and more predictable in how they behaved. While spending time with other girls may

highlight their differences and make it difficult to fit in, interacting with boys may be less challenging and reduce the demands being placed on them:

I've got to say for Ellie, boys are easier. Because trying to be, fit in with other girls is very challenging whereas boys are so different it doesn't matter. (P2: Lines 699-701)

While two of the girls were described as having a small group of male peers with whom they felt more able to be themselves, participants also frequently discussed how the girls' desire to 'fit in' left them **hiding their 'true' self**. This was most clearly discussed by Georgia's mother and teacher, who explained that Georgia wanted to appear "normal" (P3: Line 295; T3: Line 27), leaving her unable to be herself in school and "in a bubble which is somebody else" (P3: Line 274). The pressure placed on Georgia by 'well-meaning friends' who were "trying to help her and support her" (T3: Lines 150-151), left her needing to adapt her behaviour in order to avoid standing out:

...she started humming in class and one of the little girls sat by her said, who was supposedly her friend, said if you want to fit in don't do that, and Georgia hasn't done it since, because she's desperate to fit in. (P3: Lines 378-381)

The ability to adapt her behaviour was also demonstrated by Isabelle who, having attended a performing arts group since the age of four, was constantly "acting the part" (P4: Line 65) in school. This ability to mask her 'true' self could also account for why Isabelle's LSA appeared less certain about Isabelle's experiences of social anxiety, as she was effectively able to hide it in school:

...over the years she's learnt to adapt and she's a very good actress. And will say no I'm absolutely fine, understand the lot [lessons in school], but, no. (P4: Lines 56-58)

Although the ability to hide their 'true' self was mainly discussed within the school setting, Amber also explained that she would use her "pretend smile" (G1: Line 517) to avoid telling her mother how she felt after a bad day at school. This demonstrates a shared ability to cover up their 'true' self, which was most eloquently captured by Georgia's teacher who described it in battle-like terms as a fight against her autism:

...she tries so hard to fit in, that she has to fight all, all her natural tendencies. (T3: Lines 88-89)

2.4 Discussion

The aim of the present study was to gain an understanding of the experience of social anxiety in adolescent girls with ASD, from the perspective of adolescents, their parents and teachers. Through the use of semi-structured interviews, participants' experiences of social anxiety were explored. Four themes were identified including barriers to social situations, quality of relationships, coping with social situations, and desire to 'fit in'. To the author's knowledge, this is the first study to explore the experience of social anxiety in autistic girls using such an approach. Overall, the results of this study found that participants discussed a number of factors that are present in typical pathways to social anxiety in girls, including poor social skills and negative peer experiences, as well as autism-specific pathways via sensory sensitivity to noise.

The subtheme of poor social skills indicated that the girls lacked both the social communication skills and social understanding required to engage fully in social interactions. This was perceived as a potential source of social anxiety, as they struggled to keep up with the flow of conversations or understand the complexities of peer interactions. This often left them on the periphery of social interactions, as found by Calder, Hill and Pellicano (2015), and requiring the support of adults to help scaffold. Social skills deficits have been found to be associated with social anxiety in ASD (Bellini, 2004) and typical populations (Spence & Rapee, 2016); Kuusikko et al. (2008) suggested that when adolescents with ASD become aware of their poor social skills, they may become anxious about their competency in social situations, thus leading to social withdrawal. Although the girls in this study did not directly discuss their social skills, it is likely that they were becoming increasingly aware of their difficulties, as suggested by Amber and Isabelle's mothers, and were using avoidance and escape, alongside adult support, as ways of coping. While this is comparable to results of Ozsivadjian, Knott and Magiati (2012), who found that adolescents expressed their anxiety through avoidance, withdrawal and escape behaviour, it also suggests that girls' social anxiety may in part be associated with their fear of being trapped in social situations that they are unable to avoid.

Although the girls' difficulties in coping with the demands of social interactions meant that it was typically easier or preferable to avoid social situations, this avoidance did not appear to be consistently underpinned by low social motivation. Of the mothers interviewed, three described how their daughters wanted to take part in social interactions and develop friendships, but became so socially anxious that they would instead engage in

avoidance behaviours. While this contrasts with the social motivation theory of autism (Chevallier, C., Kohls, G., Troiani, V., Brodtkin, E. S. & Schultz, 2013) which purports that autism is underpinned by low social motivation, it supports previous findings that girls with ASD are socially motivated to interact with their peers (Sedgewick et al., 2016) and demonstrate a strong desire to be liked (Hiller et al., 2016). This suggests that avoidance behaviour in ASD may occur in response to social anxiety, a finding that is consistent with general avoidance behaviour to manage anxiety seen in typically developing girls (Storch, Phil, et al., 2003). Furthermore, as the girls were motivated to engage in social situations, this also accounts for why escape was an important coping strategy. Girls were often present in social situations, but did not have the social skills needed to manage this for long periods of time.

The girls in this study demonstrated a desire to fit in, which was likely underpinned by their fears of being embarrassed or getting something wrong in front of their peers. While this was mentioned by all of the triads, it was most apparent for Georgia and Isabelle who were taught solely in the mainstream school environment. The theme of desire to fit in is comparable with the findings of Humphrey and Lewis (2008), who suggested that pupils with ASD felt forced to adapt themselves and thus compromise their identity. Both Georgia and Isabelle felt unable to be their ‘true’ self in school and spent time masking their difficulties. This is consistent with emerging research on camouflaging in autism (Attwood, 2007; Dean et al., 2016; Gould & Ashton-Smith, 2011), in that the participants in this study described how the girls would act or pretend in school to cover up the differences resulting from their ASD. By engaging in socially accepted behaviour, the girls were therefore able to mask their “*natural tendencies*”, thus possibly accounting for why teachers reported fewer concerns than parents (Hiller et al., 2016). The ability to engage in mimicking behaviour and camouflaging could also partly account for why two of the girls (Amber and Isabelle) were initially diagnosed with other conditions, including ADHD or Global Developmental Delay, and why three of the participants reported that other people did not believe their diagnosis.

Throughout the interviews, participants also described how the girls were more likely to spend time interacting with boys, as they found it difficult to fit in with girls their age. Although this is similar to the results of Cridland et al. (2014) who reported that girls with ASD found it easier to get on with boys with ASD than typically developing girls, it does not necessarily support the idea that girls’ difficulties in developing and maintaining friendships with non-autistic girls was linked to their history of socialising with boys with

ASD. Instead, it suggests that girls' friendship difficulties may have been related to their lack of social understanding and, having experienced loss of friendships and peer rejection, they often preferred to interact with boys. This highlights the potential role of negative peer experiences on the development of social anxiety in ASD, a finding that is consistent with research on the development of social anxiety in typically developing girls. While positive friendship experiences have been found to be an important protective factor (Greco & Morris, 2005; Van Zalk & Van Zalk, 2015), relational victimisation – being harmed through manipulation or damage to interpersonal relationships (Crick & Grotpeter, 1996) – places girls at increased risk of developing social anxiety (Ranta et al., 2013; Siegel et al., 2009; Storch & Masia-Warner, 2004).

The theme of negative peer experiences therefore indicated that despite most of the girls having some positive experiences of friendship, they had all experienced either peer neglect, rejection or victimisation while at primary or secondary school. This supports previous research findings that peer victimisation is a common experience for young people with ASD (Portway & Johnson, 2005) and is positively associated with social anxiety (Storch et al., 2012). Difficult peer experiences could act as a potential trigger for social anxiety, as described by Ellie's mother when explaining how her daughter turned into a child who could not cope, directly following the experience of peer rejection. However, it is also possible that it is not necessarily the experience of rejection or victimisation that leads to social anxiety, but the fear or worry that this might happen. This was most clearly articulated in the case of Georgia, whose fear of being rejected by her peers was closely linked to her need to suppress her autism.

The findings of this study are in keeping with the model of anxiety in ASD, proposed by Wood and Gadow (2010), who suggested that the core symptoms of ASD act as a source of stress when they conflict with social expectations, or cause negative reactions from other people. While Amber's family had found that it was often necessary to explain her ASD when meeting new people, and thus alter social expectations, Georgia and Isabelle demonstrated a stronger preference for camouflaging, by suppressing their autistic behaviours. As the model suggests, the social anxiety experienced by the girls in this study may therefore have resulted from a number of ASD-related stressors, including difficulty interacting successfully with other people due to a lack of social skills, and experiencing rejection or victimisation possibly as a result of their ASD traits.

The results of this study also found that, unlike typical pathways, the girls' sensory sensitivity to noise was a significant barrier to engaging in social situations and was central

to their experiences of social anxiety. All four girls demonstrated varying degrees of sensitivity to loud noise, with three of the girls explaining how this left them feeling frightened or scared. Their desire for a calm and quiet environment with few people, is consistent with previous findings by Williams and Hanke (2007) who found that young people with ASD expressed a preference for a quiet classroom environment that is not “*cramped*”. The perception of people as an unpredictable source of noise that is outside of the girls’ control, indicates that people may act as potential stressors in social situations, thus increasing their social anxiety. This may at least in part be underpinned by their intolerance of uncertainty (Buhr & Dugas, 2009; Rodgers et al., 2012), in that unknown people and social situations act as a source of uncertainty as they do not meet their desire for predictability (Berenbaum et al., 2008; Birrell et al., 2011). In order to help reduce the level of uncertainty and anxiety experienced by the girls, adults discussed the use of proactive strategies as a way of coping. Parents in particular attempted to prepare the girls in advance for upcoming social situations or events, such as talking through the details of where they were going, who would be there and what they would do; this helped to make them more predictable.

Overall, the results therefore support the notion of an autism-specific pathway for the development of social anxiety in adolescent girls. While the diagnostic criteria for SAD recognises social anxiety as the fear an individual experiences in social situations where there is a risk of being embarrassed or negatively evaluated by other people (APA, 2013), for adolescent girls with ASD, this may be only one part of their social anxiety. Although the girls in this study experienced fear about being negatively perceived, they also experienced an overwhelming fear of people linked to their sensory sensitivity to noise. While this is partly consistent with the developmental pathway put forward by Bellini (2006), in that sensory overload may lead them to avoid social situations, it also indicates a more direct pathway from sensory sensitivity to social anxiety. For the girls, people were perceived as an unpredictable and frightening source of noise, which led them to feel socially anxious and thus avoid social situations.

2.4.1 Strengths and limitations

When interpreting the research findings, it is important to take account of both strengths and limitations. As this study adopted a qualitative approach, the aim was to gain an in-depth understanding of participants’ experiences of social anxiety rather than to generalise to the wider population. While this suggests that we cannot generalise beyond

the participants involved, Smith et al. (2009) suggested that we may be able to aim for theoretical generalisability by assessing the evidence in relation to existing knowledge. This study has therefore considered the themes within current theories of social anxiety and ASD, as well as providing new insight into the unique experiences of social anxiety in adolescent girls with ASD.

Due to initial difficulties with recruitment, only four triads of participants were involved in this study. While this is a relatively small sample size, previous studies have suggested that twelve participants might be sufficient for reaching theoretical saturation in a homogenous and purposive sample (Ando, Cousins, & Young, 2014; Guest, Bunce, & Johnson, 2006); this is the point at which no new themes are observed in the data (Guest et al., 2006). Although it is difficult to determine the extent to which saturation was achieved, it was found that few new themes emerged towards the latter stages of analysis. It is possible that saturation was reached given the narrow focus of this study and homogenous sample. Analysis of additional interviews would be required to explore this further.

The data collected within this study will have been limited by the nature of the methods used. While semi-structured interviews allowed for flexibility in the questions asked, and may have facilitated the search for patterns and meaning across the data, it is possible that it may also have limited the topics discussed. In addition, for the Ideal Classroom activity, it is important to recognise that the availability of Lego may have influenced the girls' classrooms and thus their responses. While alternative approaches may yield different data, the nature of social anxiety itself limits the questions that could responsibly be asked. Although some pupils were willing and able to open up and discuss their experiences without the need for direct questions, others were quieter and less forthcoming; this meant that a higher level of interpretation and perspective-taking skills were required to understand the girls' experiences of social anxiety.

Finally, it is important to acknowledge that the interviews, transcription and data analysis were carried out by the researcher alone, and that my interpretation will likely have been influenced by my position as a Trainee Educational Psychologist (TEP), and prior experience of working with adolescents with ASD. It is therefore important to recognise the subjective nature of the analysis, as it is likely that other researchers would interpret the data differently. Given sufficient time, it would have been beneficial to carry out a validity check by asking participants to review the analysis and interpretation of the data whose experiences it represents (Stiles, 1993).

2.4.2 Implications for future research

Although this study provides an initial understanding of the experiences of social anxiety in adolescent girls with ASD, the finding that sensory sensitivity to noise may act as a unique pathway for the development of social anxiety requires further exploration. Due to the small number of adolescent girls recruited, future research might benefit from investigating the role of sensory sensitivity to noise within a larger population. It is plausible that sensitivity to noise may act as an important risk factor for the development of social anxiety in ASD, but that this may not be unique to girls. Future research could therefore aim to explore whether there are generic and gender-specific pathways for the development of social anxiety in ASD, in order to help inform the development of models of anxiety in autism.

Furthermore, additional research is needed to explore the experiences of girls with ASD across a wider age range. It is not clear whether the difficulty in recruiting older girls stemmed from their reluctance to participate in the research, possibly due to more severe social anxiety, or whether they were less likely to fit the criteria of being socially anxious. As previous research has found that social anxiety increases across adolescence for young people with ASD, this suggests that the former may be more likely. Future research may therefore benefit from exploring the experiences of girls both with and without heightened levels of social anxiety, across a broader age range, to gain further insight into the development of social anxiety in ASD. Research is also needed to explore the effectiveness of interventions designed to support adolescent girls with autism, and to ascertain the extent to which improving their social skills, or increasing peer acceptance, impacts on their experience of social anxiety.

2.4.3 Implications for practice

As Educational Psychologists (EPs) may be asked to work with adolescent girls with ASD, their families and schools, it is important to consider the implications of this research for EP practice. The finding that the girls' social anxiety was related to a number of different themes indicates that there is no one intervention or approach that will necessarily be effective in reducing their social anxiety. Instead it suggests that in order to help girls become more resilient, and thus reduce their social anxiety, a number of approaches are required.

Firstly, the findings of this study indicate that staff relationships may be important for helping girls to manage their social anxiety in class. This suggests that it may be necessary to raise staff awareness and understanding of ASD in girls, to help facilitate the development of trusting relationships with staff members. This is consistent with a report by Charman et al. (2011) on good practice in autism education, which found that senior school staff prioritised and valued training on autism, and that teaching staff recognised the importance of building strong relationships with pupils with ASD. Also, given that factors such as noise were found to be central to girls' experiences of people as unpredictable, this suggests that effective classroom management is important for reducing uncertainty and increasing engagement in lessons. Staff training should therefore aim to raise understanding of girls' sensory sensitivity, as well as their ability to hide their ASD, and inform them of proactive strategies to help support them in class. EPs are in an ideal position to deliver targeted training and workshops to schools, to help develop understanding of the challenges faced by adolescent girls with ASD. Where this is not possible, EPs should also be involved in joint work alongside other agencies and professionals (Charman et al., 2011), which may help to facilitate the dissemination of information.

As the girls' social anxiety was also related to their poor social skills, this suggests that programmes designed to improve these skills may be beneficial. For example, previous research has found that interventions aimed at improving social skills in adolescents with ASD can be effective at decreasing social anxiety, and increasing friendship skills (Schohl et al., 2014). However, given that impaired social communication and interaction is a core deficit of ASD, questions remain about how effective such interventions alone can be. Instead, programmes designed to raise peer understanding of ASD should be implemented, with the ultimate goal of increasing peer acceptance. Research has found that anti-stigma programmes can improve knowledge and attitudes towards girls with ASD in mainstream schools (Ranson & Byrne, 2014). As such, this might help to reduce the pressure girls feel at needing to fit in, by providing them with a more supportive peer environment. EPs therefore have an important role to play in promoting proactive approaches, particularly in mainstream schools (Gus, 2017). EPs can support schools to develop social groups or clubs where girls with social communication needs can 'be themselves', thus providing them with valuable down-time and reducing their need to escape. While these groups might be run specifically for young people with

ASD, it is also possible that girls might benefit from opportunities to develop friendships within a small group of understanding peers with whom they share similar interests.

Finally, given the risk associated with peer rejection and victimisation, EPs can play an important role in helping to promote proactive anti-bullying programmes within schools and across local authorities. By working at a systemic level, EPs can help young people and school staff to understand the different types of bullying, and ways to challenge it, as well as promoting young people's involvement in the development of school bullying policies (Side & Johnson, 2014). In this way, EPs can support schools to reduce girls' exposure to risk factors for the development of social anxiety.

2.4.4 Reflexivity

As a TEP, it is important to recognise the knowledge, understanding and experience I bring to this research on ASD and social anxiety, including over eight years of experience in working with children and adolescents with ASD. While completing the doctorate, I have frequently been involved in carrying out Education, Health and Care assessments for children with ASD and have been aware of the increasing number of girls with ASD diagnoses. I have also gained previous experience in the use of The Ideal Classroom activity, and other personal construct approaches, which will likely have influenced my interpretation of the girls' interview data.

While transcribing the interviews, I became conscious of how my skills as a TEP affected the interview process. By engaging in active listening throughout the interviews, I feel that this helped the participants to feel more at ease and better able to open up, but also guided the conversation through the use of skills such as reflecting back and summarising. During data analysis, a reflective diary was written in order to keep a log of any factors that might have influenced the data analysis process. This included noting down any initial ideas as they emerged, including possible themes or subthemes. As the thematic analysis was inductive, it was also important to be aware of and note down any theoretical knowledge that might have influenced my interpretation of the data.

2.4.5 Conclusion

This research has provided new insight into the experience of social anxiety in adolescent girls with ASD and identified four interrelated themes including barriers to social situations, quality of relationships, coping with social situations and desire to 'fit in'.

The results were found to be consistent with previous research and supported the Wood and Gadow (2010) model of anxiety in ASD. The girls' experiences of social anxiety appeared to be closely underpinned by difficulties with sensory sensitivity to noise and poor social skills, as well as their desire to fit in and negative experiences with their peers.

Where the girls possessed the skills needed, participants discussed how they were able to act the part by pretending to be someone different, thus hiding their true self. Yet when confronted with the challenges of social situations, the girls' coping strategies relied heavily on avoidance and escape, even when they were motivated to interact. Therefore, rather than perceiving social avoidance as a part of autism and the result of low social motivation, it is important to consider the potential role of social anxiety.

Overall, this research suggests that many of the girls' experiences of social anxiety may be related to their awareness of their own difficulties and overwhelming desire to fit in with their peers. As a result, this leads them to camouflage their 'true' identity in school, or avoid social situations whereby they lack the skills needed to cope. However, this study has also indicated the possibility of an autism-specific pathway for the development of social anxiety in adolescent girls, via their sensory sensitivity, with people acting as an unpredictable source of noise. Furthermore, a number of factors were identified that may help girls to cope in social situations, and reduce their social anxiety, such as building trusting relationships with peers and adults.

Appendices

Appendix A Literature Review Search Terms

Search 1: PsycINFO (via EBSCO) conducted in October 2016

"social anxiety" OR "social anxiety disorder" OR "social phobia"

AND

peer OR "peer relation*" OR interpersonal OR classmate OR "social relation*" OR friend*
OR "peer group"

All results were filtered by:

Publication – Peer Reviewed Journal; Exclude Dissertations

Age Groups - School Age (6-12 yrs), Adolescence (13-17 yrs)

Population Group: Female

Search 2: Web of science conducted in October 2016

"social anxiety" OR "social anxiety disorder" OR "social phobia"

AND

peer OR "peer relation*" OR interpersonal OR classmate OR "social relation*" OR friend*
OR "peer group"

AND

Language: English

AND

Document Types: Article

Citation databases used:

Science Citation Index Expanded (SCI-EXPANDED) 1970-present

Social Sciences Citation Index (SSCI)- 1970-present

Refined by: Topic (adolescen* or child*)

Appendix B Literature Review Excluded Studies

Reference	Rationale for exclusion
Baker, J. R., & Hudson, J. L. (2015). Children with social phobia have lower quality friendships than children with other anxiety disorders. <i>Anxiety, Stress, & Coping</i> , 28(5), 500–513. https://doi.org/10.1080/10615806.2014.978863	Not about development of social anxiety
Blumenthal, H., Leen-Feldner, E. W., Trainor, C. D., Babson, K. A., & Bunaciu, L. (2009). Interactive roles of pubertal timing and peer relations in predicting social anxiety symptoms among youth. <i>Journal of Adolescent Health</i> , 44(4), 401–403. https://doi.org/10.1016/j.jadohealth.2008.08.023	Lack of reported data
Bosacki, S., Dane, A., Marini, Z., & YLC-CURA. (2007). Peer relationships and internalizing problems in adolescents: Mediating role of self-esteem. <i>Emotional and Behavioural Difficulties</i> , 12(4), 261–282. https://doi.org/10.1080/13632750701664293	Lack of reported data
Bracik, J., Krysta, K., & Zaczek, A. (2012). Impact of family and school environment on the development of social anxiety disorder: A questionnaire study. <i>Psychiatria Danubina</i> , 24(1), 125–127. Retrieved from http://www.hdbp.org/psychiatria_danubina/pdf/dnb_vol24_sup1/dnb_vol24_sup1_125.pdf	No separate data for girls
Cohen, J. S., & Kendall, P. C. (2015). Peer victimization among children and adolescents with anxiety disorders. <i>Child Psychiatry and Human Development</i> , 46(3), 393–405. https://doi.org/10.1007/s10578-014-0479-x	Gender not considered as an independent factor
Coplan, R. J., Ooi, L. L., & Rose-Krasnor, L. (2015). Naturalistic observations of schoolyard social participation: Marker variables for socio-emotional functioning in early adolescence. <i>Journal of Early Adolescence</i> , 35(5–6), 628–650. https://doi.org/10.1177/0272431614523134	No separate data for social anxiety
Craig, W. M. (1998). The relationship among bullying, victimization, depression, anxiety, and aggression in elementary school children. <i>Personality and Individual Differences</i> , 24(1), 123–130. https://doi.org/10.1016/S0191-8869(97)00145-1	No separate data for girls

Cunha, M., Soares, I., & Pinto-Gouveia, J. (2008). The role of individual temperament, family and peers in social anxiety disorder: A controlled study. <i>International Journal of Clinical and Health Psychology</i> , 8(3), 631–655.	No gender analysis for social anxiety as outcome variable
Delgado, B., Inglés, C. J., Aparisi, D., & García-Fernández, J. M. (2016). Social anxiety and sociometric nomination in spanish students of compulsory secondary education. <i>The Spanish Journal of Psychology</i> , 19, E41. https://doi.org/10.1017/sjp.2016.47	Gender not considered as an independent factor
Dempsey, A. G., Sulkowski, M. L., Nichols, R., & Storch, E. A. (2009). Differences between peer victimization in cyber and physical settings and associated psychosocial adjustment in early adolescence. <i>Psychology in the Schools</i> , 46(10), 962–972. https://doi.org/10.1002/pits.20437	No separate data for girls
Epkins, C. C., & Seegan, P. L. (2015). Mother-reported and children's perceived social and academic competence in clinic-referred youth: Unique relations to depression and/or social anxiety and the role of self-perceptions. <i>Child Psychiatry and Human Development</i> , 46(5), 656–670. https://doi.org/10.1007/s10578-014-0508-9	No analysis of data by gender
Erath, S. A., Flanagan, K. S., Bierman, K. L., & Tu, K. M. (2010). Friendships moderate psychosocial maladjustment in socially anxious early adolescents. <i>Journal of Applied Developmental Psychology</i> , 31(1), 15–26. https://doi.org/10.1016/j.appdev.2009.05.005	Not about development of social anxiety
Festa, C. C., & Ginsburg, G. S. (2011). Parental and peer predictors of social anxiety in youth. <i>Child Psychiatry and Human Development</i> , 42(3), 291–306. https://doi.org/10.1007/s10578-011-0215-8	No separate data for girls in peer relationships
Ginsburg, G. S., La Greca, A. M., & Silverman, W. K. (1998). Social anxiety in children with anxiety disorders: Relation with social and emotional functioning. <i>Journal of Abnormal Child Psychology</i> , 26(3), 175–185. https://doi.org/10.1023/A:1022668101048	Lack of reported data
Gren-Landell, M., Aho, N., Andersson, G., & Svedin, C. G. (2011). Social anxiety disorder and victimization in a community sample of adolescents. <i>Journal of Adolescence</i> , 34(3), 569–577. https://doi.org/10.1016/j.adolescence.2010.03.007	Data combined for peers/siblings

Inderbitzen, H. M., Walters, K. S., & Bukowski, A. L. (1997). The role of social anxiety in adolescent peer relations: Differences among sociometric status groups and rejected subgroups. <i>Journal of Clinical Child Psychology</i> , 26(4), 338–348. https://doi.org/10.1207/s15374424jccp2604_2	No separate data for girls in peer relationships
Jackson, T. (2007). Protective self-presentation, sources of socialization, and loneliness among Australian adolescents and young adults. <i>Personality and Individual Differences</i> , 43(6), 1552–1562. https://doi.org/10.1016/j.paid.2007.04.012	Not about development of social anxiety
Landoll, R. R., La Greca, A. M., Lai, B. S., Chan, S. F., & Herge, W. M. (2015). Cyber victimization by peers: Prospective associations with adolescent social anxiety and depressive symptoms. <i>Journal of Adolescence</i> , 42, 77–86. https://doi.org/10.1016/j.adolescence.2015.04.002	No separate data for social anxiety
Leadbeater, B. J., Thompson, K., & Sukhawathanakul, P. (2014). It gets better or does it? Peer victimization and internalizing problems in the transition to young adulthood. <i>Development and Psychopathology</i> , 26(2014), 675–88. https://doi.org/10.1017/S0954579414000315	Not social anxiety
Levpušček, M. P., & Berce, J. (2012). Social anxiety, social acceptance and academic self-perceptions in high-school students. <i>Drustvena Istrazivanja</i> , 21(2), 405–419. https://doi.org/10.5559/di.21.2.06	No analysis of data by gender
Liu, J., Coplan, R. J., Ooi, L. L., Chen, X., & Li, D. (2015). Examining the implications of social anxiety in a community sample of mainland chinese children. <i>Journal of Clinical Psychology</i> , 71(10), 979–993. https://doi.org/10.1002/jclp.22195	No analysis of data by gender
MacEvoy, J. P., Papadakis, A. A., Fedigan, S. K., & Ash, S. E. (2016). Friendship expectations and children's friendship-related behavior and adjustment. <i>Merrill-Palmer Quarterly</i> , 62(1), 74–104. https://doi.org/10.13110/merrpalmquar1982.62.1.0074	Outcome measure specific to fear of negative evaluation
Miers, A. C., Blote, A. W., de Rooij, M., Bokhorst, C. L., & Westenberg, P. M. (2013). Trajectories of social anxiety during adolescence and relations with cognition, social competence, and temperament. <i>Journal of Abnormal Child Psychology</i> , 41(1), 97–110. https://doi.org/10.1007/s10802-012-9651-6	No separate data for girls for relationship between social problems and social anxiety

Motoca, L. M., Williams, S., & Silverman, W. K. (2012). Social skills as a mediator between anxiety symptoms and peer interactions among children and adolescents. <i>Journal of Clinical Child and Adolescent Psychology</i> , 41(3), 329–336. https://doi.org/10.1080/15374416.2012.668843	Not social anxiety
Muris, P., & Littel, M. (2005). Domains of childhood teasing and psychopathological symptoms in dutch adolescents. <i>Psychological Reports</i> , 96(3), 707–708. https://doi.org/10.2466/PRO.96.3.707-708	No separate data for social anxiety
Pabian, S., & Vandebosch, H. (2016). An investigation of short-term longitudinal associations between social anxiety and victimization and perpetration of traditional bullying and cyberbullying. <i>Journal of Youth and Adolescence</i> , 45(2), 328–339. https://doi.org/10.1007/s10964-015-0259-3	No separate data for social anxiety
Peng, Z. W., Lam, L. T., Jin, J., & Jin, G. (2011). Factors associated with social interaction anxiety among Chinese adolescents. <i>East Asian Archives of Psychiatry</i> , 21(4), 135–141. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2012-00708-001&site=ehost-live	No analysis of relationship between peer relations and social anxiety
Prinstein, M. J. (2007). Moderators of peer contagion: A longitudinal examination of depression socialization between adolescents and their best friends. <i>Journal of Clinical Child and Adolescent Psychology</i> , 36(2), 159–170. https://doi.org/10.1080/15374410701274934	Social anxiety as moderator
Prinstein, M. J. (2007). Moderators of peer contagion: A longitudinal examination of depression socialization between adolescents and their best friends. <i>Journal of Clinical Child and Adolescent Psychology</i> , 36(2), 159–170. https://doi.org/10.1080/15374410701274934	Duplicate
Ranta, K., Kaltiala-Heino, R., Pelkonen, M., & Marttunen, M. (2009). Associations between peer victimization, self-reported depression and social phobia among adolescents: The role of comorbidity. <i>Journal of Adolescence</i> , 32(1), 77–93. https://doi.org/10.1016/j.adolescence.2007.11.005	Not about development of social anxiety
Scharfstein, L. a., & Beidel, D. C. (2015). Social skills and social acceptance in children with anxiety disorders. <i>Journal of Clinical Child and Adolescent Psychology</i> , 44(5), 826–838. https://doi.org/10.1080/15374416.2014.895938	No separate data for girls

Scharfstein, L., Alfano, C., Beidel, D., & Wong, N. (2011). Children with generalized anxiety disorder do not have peer problems, just fewer friends. <i>Child Psychiatry and Human Development</i> , 42(6), 712–723. https://doi.org/10.1007/s10578-011-0245-2	No analysis of data by gender
Stapinski, L. A., Araya, R., Heron, J., Montgomery, A. A., & Stallard, P. (2015). Peer victimization during adolescence: Concurrent and prospective impact on symptoms of depression and anxiety. <i>Anxiety Stress and Coping</i> , 28(1), 105–120. https://doi.org/10.1080/10615806.2014.962023	Not social anxiety
Stapinski, L. A., Bowes, L., Wolke, D., Pearson, R. M., Mahedy, L., Button, K. S., ... Araya, R. (2014). Peer victimization during adolescence and risk for anxiety disorders in adulthood: A prospective cohort study. <i>Depression and Anxiety</i> , 31(7), 574–582. https://doi.org/10.1002/da.22270	No separate data for girls in relationship between peers and social anxiety
Teachman, B. A., & Allen, J. P. (2007). Development of social anxiety: Social interaction predictors of implicit and explicit fear of negative evaluation. <i>Journal of Abnormal Child Psychology</i> , 35(1), 63–78. https://doi.org/10.1007/s10802-006-9084-1	No analysis of relationship between peer relations and social anxiety
van den Eijnden, R., Vermulst, A., van Rooij, A. J., Scholte, R., & van de Mheen, D. (2014). The bidirectional relationships between online victimization and psychosocial problems in adolescents: A comparison with real-life victimization. <i>Journal of Youth and Adolescence</i> , 43(5), 790–802. https://doi.org/10.1007/s10964-013-0003-9	No separate data for girls
van Oort, F. V. A., Greaves-Lord, K., Ormel, J., Verhulst, F. C., & Huizink, A. C. (2011). Risk indicators of anxiety throughout adolescence: The trails study. <i>Depression and Anxiety</i> , 28(6), 485–494. https://doi.org/10.1002/da.20818	No analysis of data by gender
Walters, K. S., & Inderbitzen, H. M. (1998). Social anxiety and peer relations among adolescents: Testing a psychobiological model. <i>Journal of Anxiety Disorders</i> , 12(3), 183–198. https://doi.org/10.1016/S0887-6185(98)00008-5	No separate data for girls in peer relationships
Zimmer-Gembeck, M. J., & Pronk, R. E. (2012). Relation of depression and anxiety to self- and peer-reported relational aggression. <i>Aggressive Behavior</i> , 38(1), 16–30. https://doi.org/10.1002/ab.20416	No analysis of data by gender

Appendix C Literature Review Included Studies

Study	Country	Design	Participants	Social Anxiety measures	Peer relationship measures	Relevant findings
Cavanaugh, A. M., & Buehler, C. (2016). Adolescent loneliness and social anxiety: The role of multiple sources of support. <i>Journal of Social and Personal Relationships</i> , 33(2), 149–170.	South East USA	Longitudinal (three time points – W1, W2, W3 – 2 year follow up) Self-report Parent-report Lab observation	416 adolescents + parents (mother and father) Gender: 211 girls (51%), 205 boys (49%) Age range: 11 to 14 years. Mean age: 11.86 years Ethnicity: 91% European American, 3% African American	SASC-R	UCLA Loneliness Scale Cumulative support index Friend support scale	Cumulative support across the four support domains was associated with decreased social anxiety in early adolescence ($p=.017$). This association was significant for both genders but stronger for boys ($b= -.23$, $p<.001$) than girls ($b= -.16$, $p<.001$). Peer support was uniquely associated with decreased social anxiety across early adolescence ($p=.03$). No gender difference was found.

APPENDIX C

DeWit, D. J., Karioja, K., Rye, B. J., & Shain, M. (2011). Perceptions of declining classmate and teacher support following the transition to high school: Potential correlates of increasing student mental health difficulties. <i>Psychology in the Schools</i> , 48(6), 556–572.	Canada	Longitudinal (12 months) Nested cohort design Latent growth modelling	2,616 adolescents from 23 high school Gender: 54% female Age range: 12-16 years. Mean age: 13.77 years	SASC-R (SAD-G)	SSAS	No significant gender differences were found for social anxiety. Girls perceived higher levels of classmate support at the beginning of Grade 9 than boys, and demonstrated a slower rate of decline. Student perception of declining classmate support was strongly associated with increased social anxiety ($p < .001$). Students who experienced high classmate support at the beginning of Grade 9 were more likely than those perceiving low support to experience an increase in social anxiety ($p < .01$). No significant difference was found in model pathways for social anxiety in male and female students.
Flanagan, K. S., Erath, S. A., & Bierman, K. L. (2008). Unique associations between peer relations and social anxiety in early adolescence. <i>Journal of Clinical Child and Adolescent</i>	Pennsylvania, USA.	Cross-sectional. Hierarchical regression. Self-report Peer-report	383 students from two middle schools. Gender: 165 boys (43%), 218 girls (57% girls) Age range: 11 years 2 months to 14 year 10 months. Mean age: 12 years, 8	SAS-A	FQQ – Revised Victimisation Questionnaire (5 item version) Peer Social Network Diagram	Significant associations were found between social anxiety and positive peer nominations ($p < .001$), peer victimisation ($p < .001$) and friendship quality ($p < .001$). A significant interaction was found between gender and peer victimisation, with the relationship stronger between social anxiety and peer victimisation for boys than girls (.55 vs .29, $p < .01$).

<i>Psychology</i> , 37(4), 759–769.			months Ethnicity: 365 Caucasian (95%), three Hispanic (1%), four African American (1%), 11 other (3%).			Boys reported more frequent victimisation than girls ($p < .01$) and were more often nominated by peers as being victimised ($p < .05$).
Greco, L. A., & Morris, T. L. (2005). Factors influencing the link between social anxiety and peer acceptance: Contributions of social skills and close friendships during middle childhood. <i>Behavior Therapy</i> , 36(2), 197–205.	West Virginia, USA.	Cross-sectional. Hierarchical regression analysis. Self-report Peer-report	333 children attending six public schools Gender: 144 boys, 189 girls Age range: 8-12yr years. Mean age: 9.45 years Ethnicity: European-American (84.4%), Asian (4.8%), African American (4.2%), Native American (3.3%), Hispanic (2.1%) and other (9%).	SPAI-C	FQQ	Girls scored higher than boys on the SPAI-C ($p < .01$) and Positive Friendship Quality ($p < .01$). Girls SPAI-C scores were negatively correlated with positive friendship qualities ($p < .01$) and positively correlated with negative friendship qualities ($p < .01$). Only the latter positive correlation between SPAI-C and Negative Friendship Quality was found for boys ($p < .01$). A significant interaction was found between social preference and negative friendship quality for girls' social anxiety ($p < .01$). Girls with low social preference ratings experienced higher levels of social anxiety when their best friendships were perceived as high in negative friendship qualities.

APPENDIX C

Grills-Taquechel, A. E., Norton, P., & Ollendick, T. H. (2010). A longitudinal examination of factors predicting anxiety during the transition to middle school. <i>Anxiety, Stress, & Coping</i> , 23(5), 493–513.	Virginia, USA.	Longitudinal (two time points: T1 and T2 – two years later) Multiple regression	77 adolescents in middle school Gender: female (52%, 48% male) Age range: 11-15years. Mean age: 11.69 years at T1 and 13.64 years at T2. Ethnicity: Caucasian (88%), African American (4%), Native American/Alaskan Native (4%), Bi-racial (3%) and Asian-American (1%).	MASC	SPPC SSSC	No significant gender difference was found for social anxiety in eighth grade, or friend and classmate support in sixth grade ($p > .05$). Self-perceived social acceptance ($p = .02$) and gender ($p < .01$) significantly and uniquely predicted T2 social anxiety. Higher social acceptance scores were associated with decreased social anxiety from T1 to T2. Boys social anxiety decreased significantly from T1 to T2 ($p < .01$), while girls' social anxiety did not significantly change over time ($p = .22$). No interaction effects were found between social acceptance and gender for adolescents' social anxiety. Classmate support and friendship support at T1 did not significantly predict T2 social anxiety.
Hamilton, J. L., Potter, C. M., Olino, T. M., Abramson, L. Y., Heimberg, R. G., & Alloy, L. B. (2016). The temporal sequence of social anxiety and	Philadel-phia, USA	Longitudinal (three time points, T1-3, 9 months apart). Path Analyses using Mplus	410 adolescents from private and public school (410 at T1, 386 at T2 (94%) and 327 at T3 (80%)). Gender: 53% female, 47% male	MASC	SEQ-S	Relational peer victimisation and general interpersonal stressors were significantly correlated with social anxiety at T1, T2 and T3 (values not reported). Interpersonal stressors and peer victimisation significantly predicted social anxiety symptoms at T2 ($p < .001$), which further predicted social anxiety at T3 ($p < .01$). Interpersonal stressors

depressive symptoms following interpersonal stressors during adolescence. <i>Journal of Abnormal Psychology</i> , 44(3), 495–509.		7.0 Self-report	Age range: 12-13 years. Mean age: 12.84 years Ethnicity: 51% African American/Black and remainder Caucasian/White or Biracial) Female caregiver included in research.			($p < .01$) and peer victimisation ($p < .001$) also had a significant indirect effect on T3 social anxiety via T2 depressive symptoms. High levels of stressors were associated with depression, which prospectively predicted high social anxiety. Girls demonstrated more social anxiety than boys at T1 ($p < .01$) and T2 ($p < .01$), and experienced significantly more interpersonal stressors ($p < .01$) and peer victimisation ($p < .01$). Mediation pathways did not differ significantly across gender.
Hamilton, J. L., Shapero, B. G., Stange, J. P., Hamlat, E. J., Abramson, L. Y., & Alloy, L. B. (2013). Emotional maltreatment, peer victimization, and depressive versus anxiety symptoms during adolescence: hopelessness as a mediator. <i>Journal of Clinical Child & Adolescent</i>	Philadelphia, USA	Longitudinal (three time points, T1-3, 9 months apart). Self-report Mother-report Hierarchical regression.	225 adolescents from private and public school. Gender: 59% female, 41% male Age range: 12-13 years. Mean age: 12.84 years Ethnicity: 55% African American/Black and remainder Caucasian/White or Biracial)	MASC	SEQ-S	Girls reported significantly more social anxiety than boys at T1 and T3 ($p < .05$). There were no significant gender differences in peer victimisation. Peer victimisation at T2 was significantly correlated with social anxiety at T3 ($p < .01$). However, relationally oriented peer victimisation did not predict prospective increases in social anxiety. Gender did not significantly moderate the relationship between peer victimisation and social anxiety.

<i>Psychology</i> , 42(January), 332–47.		Female caregiver included in research.				
Hutcherson, S. T., & Epkins, C. C. (2009). Differentiating parent- and peer- related interpersonal correlates of depressive symptoms and social anxiety in preadolescent girls. <i>Journal of Social and Personal Relationships</i> , 26(6– 7), 875–897.	West Texas, USA	Cross- sectional - correlational Self-report Mother- report	100 preadolescent girls Age range: 9-12 years Mean age: 10.52 years. Ethnicity: Caucasian (73%), Hispanic (25%) and African American (2%). Mothers also participated (mean age 38.49 years)	SASC-R	LS SPPC SSSC PRS	Classmate support, close friend support and peer acceptance (mother and child report) were significantly and negatively correlated with social anxiety ($p < .001$). After controlling for depression, significant negative correlations remained between social anxiety and classmate support ($p < .001$), mother-reported peer acceptance ($p < .001$) and child-reported peer acceptance ($p < .001$). Close friend support was no longer significantly associated with social anxiety. Loneliness was found to mediate the relationship between classmate support and social anxiety ($p < .001$), and between girls' perceived social acceptance and social anxiety ($p = .02$).
La Greca, A. M., & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. <i>Journal of Abnormal Child</i>	USA	Cross- sectional Self-report	250 students Gender: 101 boys, 149 girls Age range: 15-18 years. Mean age: 17.04 years	SAS-A	SSSCA AI SPPA	Girls reported more total social anxiety than boys ($p = .028$). Girls reported more social support from their best friends ($p < .001$) and more intimacy in their close friendships ($p < .001$) than boys. For girls, higher social anxiety was related to lower perceived support from classmates and lower perceptions of social acceptance. Girls who reported higher levels of social anxiety also

<i>Psychology</i> , 26(2), 83–94.		Ethnicity: 51.6% White, 31.6% Hispanic, 15.2% African-American, 1.6% Asian		<p>reported having fewer best friends ($p < .001$), feeling less competent in their friendships ($p < .001$), and perceiving friendships as less supportive ($p < .001$), less intimate ($p < .001$) and lower in companionship ($p < .001$).</p> <p>Regressions indicated that close friendships and peer acceptance were significant predictors of social anxiety in girls and account for 29% to 43% of variance ($p < .05$) in social anxiety.</p>		
La Greca, A. M., & Harrison, H.M. (2005). Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and depression? <i>Journal of Clinical Child & Adolescent Psychology</i> , 34(1), 49–61.	Florida, USA	Cross-sectional Self-report Hierarchical regression	<p>421 adolescents</p> <p>Gender: 247 girls (57%)</p> <p>Age range: 14-19 years. Mean age: 16.5 years</p> <p>Ethnicity: 67.1% Hispanic, 17.4% Non-Hispanic White, 9% Black, 6.4% mixed others.</p>	SAS-A	Peer Crowd Questionnaire R-PEQ Network of Relationships – Revised	<p>No gender differences were observed for social anxiety. Boys reported more relational ($p < .01$) and overt victimisation ($p < .001$) than girls. Girls reported more positive interactions with best friends than boys ($p < .001$), while boys reported more negative interactions in their best friendships ($p < .001$).</p> <p>Relational and overt victimisation were positively correlated with social anxiety ($p < .001$). While positive qualities of best friendships were negatively correlated with social anxiety ($p < .001$), negative qualities were associated with high social anxiety ($p < .001$).</p> <p>Higher levels of relational victimisation uniquely predicted social anxiety ($p < .001$) but overt victimisation was not a significant predictor. Lower levels of positive best friendship qualities</p>

						($p < .01$) and higher levels of negative friendship qualities ($p < .01$) also uniquely predicted social anxiety. Gender interactions were non-significant indicating that gender did not moderate any of the main effects.
Loukas, A., & Pasch, K. E. (2013). Does school connectedness buffer the impact of peer victimization on early adolescents' subsequent adjustment problems? <i>The Journal of Early Adolescence</i> , 33(2), 245–266.	Texas, USA.	Longitudinal (Wave/Time 1 and Wave 2 – one year later) Self-report Peer-report Hierarchical regression analyses	490 adolescents in three middle schools. Gender: 53% female, 47% male. Age range: 10-14 years. Mean age: 11.69 years at Time 1 and 12.74 years at Time 2. Ethnicity: 76% European American, 16% Hispanic, 3% African American.	SAS-A	SEQ-PR	After controlling for Time 1 social anxiety, gender was directly and negatively associated with social anxiety at Wave 2, with girls reporting more social anxiety than boys ($p < .05$). Overt and relational victimisation at Wave 1 were positively associated with social anxiety at Wave 1 and 2 in boys and girls ($p < .001$). After Wave 1 social anxiety and gender were partialled out, only overt victimisation uniquely contributed to social anxiety at Wave 2 ($p < .05$). Gender was not found to moderate the effect of overt victimisation on social anxiety, with boys and girls experiencing similar increases in social anxiety.
Lu, A., Tian, H., Yu, Y., Feng, Y., Hong, X., & Yu, Z. (2015). Peer attachment and social anxiety: Gender as a	China	Cross-sectional Hierarchical regression analyses	133 hearing adolescents in elementary school and middle school. 112 pupils at five special educational	SASC	IPPA-peer	For children with normal hearing, a significant negative correlation was found between peer attachment and social anxiety ($p < .001$). For hearing children, there was a significant negative association between peer attachment and social anxiety, with the association being stronger

moderator across deaf and hearing adolescents. <i>Social Behavior and Personality</i> , 43(2), 231–240.		Self-report	school for deaf adolescents. Gender: Hearing - 68 boys, 65 girls; Deaf – 61 boys, 51 girls Mean age: 12.89 years for hearing and 15.13 years for deaf adolescents			for girls ($p < .001$) than boys ($p < .05$).
Ranta, K., Kaltiala-Heino, R., Frojd, S., & Marttunen, M. (2013). Peer victimization and social phobia: A follow-up study among adolescents. <i>Social Psychiatry and Psychiatric Epidemiology</i> , 48(4), 533–544.	Finland	Longitudinal (two time points – T1 and T2, 2 year follow up) Self-report	2,070 adolescents (at T1). Gender: 56.4% (1,167) girls Age range: 15-16 years at T1 Mean age: 15.5 years at T1, 17.6 years at T2.	SPIN	Questions derived from the WHO youth health study	There was a significant difference in direct victimisation between boys and girls at T1 and T2 ($p < .001$), with more boys reporting being directly victimised. There was a significant decrease in reported direct victimisation for boys and girls from T1 to T2 ($p < .01$). There was no significant differences for relative victimisation. There was a significant difference in social anxiety for boys and girls at T2 only ($p = .023$). Social anxiety increased significantly from T1 to T2 for girls ($p = .035$) but not boys ($p = .23$). Direct victimisation at age 15 was associated with a threefold risk for social anxiety at age 17 for boys ($p < .05$) and girls ($p < .05$). However, direct victimisation at age 15 was an independent predictor of social anxiety at age 17 for boys but

						not girls. There was a sixfold risk of social anxiety at age 17 for girls who were relationally victimised at age 15 ($p < .001$), but no difference for boys. Relational victimisation at age 15 was independently associated with social anxiety at age 17 in girls ($p < .05$).
Siegel, R. S., La Greca, A. M., & Harrison, H. M. (2009). Peer victimization and social anxiety in adolescents: Prospective and reciprocal relationships. <i>Journal of Youth and Adolescence</i> , 38(8), 1096–1109.	Florida, USA	Longitudinal – 2 month prospective with two time points (T1 and T2) Self-report	228 adolescents in a public high school Gender: 58% girls Age range: 14-19 years. Mean age: 16 years Ethnicity: 78% Hispanic, 12% Non-Hispanic White, 4% Black, 6% other.	SAS-A	R-PEQ	Girls reported slightly higher levels of social anxiety than boys at each time point. The difference was non-significant. No gender differences in peer victimisation were found. Social anxiety was significantly associated with overt, relational and reputational peer victimisation both at T1 and T2. Relational victimisation at T1 significantly and uniquely predicted T1 social anxiety ($p < .001$) with higher relational victimisation associated with high social anxiety. Gender did not moderate the relationship between peer victimisation and social anxiety at T1. Relational victimisation at T1 significantly predicted increases in social anxiety over time for girls ($p < .05$) but not boys.

Starr, L. R., & Davila, J. (2008). Differentiating interpersonal correlates of depressive symptoms and social anxiety in adolescence: Implications for models of comorbidity. <i>Journal of Clinical Child & Adolescent Psychology</i> , 37(2), 337–349.	USA	Cross-sectional Self-report Clinical interviews including parent interview	83 girls Mean age: 13.46 years Ethnicity: 89% Caucasian Involved primary caregiver.	SAS-A	IPPA ICQ SPPA Measure of Adolescent Heterosocial Competence UCLA Loneliness Scale	While controlling for depression, significant negative relationships were found between social anxiety and number of close friends ($p < .05$), interpersonal competence ($p < .01$), trust in friends ($p < .01$) and peer communication ($p < .01$). A significant positive relationship was found between loneliness and social anxiety ($p < .01$).
Storch, E. A., Brassard, M. R., & Masia-Warner, C. L. (2003). The relationship of peer victimization to social anxiety and loneliness in adolescence. <i>Child Study Journal</i> , 33(1), 1–18.	USA	Cross-sectional Hierarchical regression analysis Self-report	383 adolescents Gender: 238 girls Age range: 13-16 years. Mean age: 14 years, 4 months Ethnicity: European American (83.3%), Hispanic (6.2%), African American (3.1%), Asian (2.5%) and other	SAS-A SPAI-C MASC	SEQ-S Asher Loneliness Scale	A significant difference was found for overt victimisation ($p < .001$), but not relational, with boys reporting higher levels of overt victimisation than girls. A significant gender difference was found for FNE ($p < .001$) and physiological symptoms of social anxiety ($p < .05$), with girls reporting higher levels than boys. Overt victimisation was significantly associated with social anxiety measures in girls including FNE ($p < .001$), physiological symptoms ($p < .001$)

			(4.9%).			and social avoidance ($p < .01$). When controlling for overt victimisation, both boys' and girls' relational victimisation was uniquely correlated with FNE ($p < .001$), physiological symptoms ($p < .001$) and social avoidance ($p < .001$).
Storch, E. A., & Masia-Warner, C. (2004). The relationship of peer victimization to social anxiety and loneliness in adolescent females. <i>Journal of Adolescence</i> , 27(3), 351–362.	USA	Cross-sectional Self-report	561 female adolescents Age range: 13-17 years. Mean age: 14 years, 9 months Ethnicity: Caucasian (82.5%), Hispanic (7%), Asian (2%), African American (1.2%) and other (7.3%).	SAS-A	SEQ-S Asher Loneliness Scale	Overt and relational victimisation were significantly positively correlated to FNE, SAD-N, SAD-G and loneliness, and negatively related to prosocial behaviour (all $p < .001$). Relational victims and relational/overt victims reported higher social anxiety and loneliness than non-victims and overt victims. They also reported lower levels of prosocial behaviour than non-victims. Overt and relational victimisation uniquely predicted FNE, SAD-N, SAD-G and loneliness, after controlling for prosocial behaviour. Prosocial behaviour did not moderate the relationship between overt victimisation or relational victimisation and social anxiety outcomes.
Storch, E. A., Masia-Warner, C., Crisp, H., & Klein, R. G. (2005). Peer victimization and social anxiety in	USA	Longitudinal – one year prospective (Time 1 –T1 and Time 2 – T2)	198 adolescents of which 144 participated one year later. Gender: 126 female,	SAS-A SPAI-C	SEQ-S	Relational victimisation was significantly associated with T2 SPAI-C scores after controlling for T1 SPAI-C scores. Overt and relational victimisation did not significantly predict SAS-A total scores.

adolescence: A prospective study. <i>Aggressive Behavior</i> , 31(5), 437–452.		Hierarchical regression analysis	72 male at baseline. 94 female, 50 male at follow-up.			When analysed separately for boys and girls, overt and relational victimisation at T1 was not significantly related to social anxiety (SPAI-C or SAS-A) one year later after controlling for T1 social anxiety.
		Self-report	Baseline age range: 13-15 years			
			Baseline mean age: 13.9 years			
Storch, E. A., Phil, M., Nock, M. K., Masia-Warner, C., & Barlas, M. E. (2003). Peer victimization and social-psychological adjustment in Hispanic and African-American children. <i>Journal of Child and Family Studies</i> , 12(4), 439–452.	USA	Cross-sectional Hierarchical regression analysis Self-report	205 children - 186 children in final sample after excluding Caucasian and Asian. Age range: 10-13 years. Mean age: 10.83 years Ethnicity: 77.6% Hispanic American, 15.1% African American, 4.4% Asian and 2.9% Caucasian.	SASC-R	SEQ-S Asher Loneliness Scale	Girls reported higher levels of prosocial behaviour from peers than boys ($p < .001$) and lower rates of overt victimization ($p < .005$). Girls also had higher SAD-G scores than boys ($p < .05$). Overt and relational victimisation were significantly positively correlated with social anxiety measures (FNE, SAD-N, SAD-G; medium to large effect sizes, $p < .005$). Prosocial behaviour was significantly negatively correlated with social anxiety measures (small effect size, $p < .05$). Overt victimisation was a significant predictor of FNE ($p < .001$), SAD-N ($p < .001$) and SAD-G ($p < .001$) in girls. Controlling for overt victimisation, relational victimisation was uniquely associated with FNE ($p < .001$) and SAD-G ($p < .03$) in girls. There was no moderating effect of prosocial behaviour from peers on the relationship between victimisation and social anxiety.

Tillfors, M., Persson, S., Willen, M., & Burk, W. J. (2012). Prospective links between social anxiety and adolescent peer relations. <i>Journal of Adolescence</i> , 35(5), 1255–1263.	Sweden	Longitudinal - one year prospective (Time 1 – T1 and Time 2 – T2) Self-report Peer report	1,528 secondary students Gender: 754 female, 774 male Age range: 12-19 years. Mean age: 14.69 years	SPSQ-C	FQQ	For girls, social anxiety was significantly negatively correlated with relationship support at T1 and T2 ($p < .01$) and with peer acceptance at T2 ($p < .01$). Social anxiety was also significantly positively correlated with peer victimisation at T1 and T2 ($p < .01$) and with relationship negativity at T2 ($p < .01$). At T2, social anxiety and peer victimisation were more strongly linked for females than males ($p = .011$). Age predicted changes in social anxiety and relationship support for females, but not males, with decreases in social anxiety and increases in relationship support reported with increasing age. Peer acceptance predicted decreases in social anxiety from T1 to T2 for males and females.
van der Ploeg, R., Steglich, C., Salmivalli, C., & Veenstra, R. (2015). The intensity of victimization: Associations with children's psychosocial well-being and social standing in the	Netherlands	Cross-sectional Regression analysis Self-report Peer nominations	2,859 children in elementary schools Gender: 49.6% boys Age range: 8-12 years	SPSQ-C	Olweus Bully/Victim Questionnaire	Students who were often victimized, or had more than one bully in the classroom, had higher levels of social anxiety than non-victimised peers. A higher number of bullies was associated with social anxiety for boys ($p = .004$) but not girls ($p = .42$). Frequency of victimisation was more strongly associated with social anxiety for girls ($p < .001$) than boys ($p = .01$).

classroom. *PLoS ONE*, 10(10), 1–15.

Van Zalk, N., & Van Zalk, M. (2015). The importance of perceived care and connectedness with friends and parents for adolescent social anxiety. <i>Journal of Personality</i> , 83(3), 346–360.	Western Europe	Longitudinal (three time points- T1, T2 and T3 over 3 years) Modelling using Simulation Investigation for Empirical Network (SIENA) Self-report	2,194 children and adolescents Gender: 1,053 girls, 1,141 boys Age range: approximately 10-18 years. Mean age: 13.58 years	Eight questions about unusual fears in different situations (3-point scale from no fear to a lot of fear).	FQQ – Validation and Caring subscale	The number of friend nominations received predicted social anxiety over time ($p < .01$). Adolescents who were selected more as close friends experienced decreased social anxiety over time. Selecting friends had no effect on social anxiety over time. Care by friends mediated the association between being selected as a friend and social anxiety. A significant interaction was found between friend nominations received and gender ($p < .001$). Girls who were selected as a friend showed a lower likelihood of increasing in social anxiety than boys who were selected as a friend. Being nominated as a friend has a stronger protective effect for girls than boys.
Vernberg, E. M., Abwender, D. A., Ewell, K. K., & Beery, S. H. (1992). Social anxiety and peer relationships in early adolescence: A	Florida, USA	Longitudinal (three time points – T1, T2 (2 month follow up) and T3 (9 months)	68 adolescents in junior high Gender: 38 boys, 30 girls Age range: 12-14 years. Mean age: 12.9 years	SASC-R	Friendship Interview Rejection Experiences Questionnaire	Companionship and intimacy in friendship quality accounted for 13% of the variance in FNE at 2 month follow up ($p < .02$). Intimacy also uniquely predicted social anxiety (SAD-N) at 9 months ($p < .03$), with lower intimacy predicting increased social anxiety. No gender effects were found for friendship qualities.

APPENDIX C

prospective analysis. <i>Journal of Clinical Child Psychology</i> , 21(2), 189–196.		Hierarchical regression analysis Self-report /Interview	Ethnicity: 38 white, 21 Hispanic, 9 Black			Rejection experiences between T1 and T2 accounted for 13% of the variance in FNE at T2 ($p < .02$). The gender by rejection interaction accounted for 11% of partialled variance in SAD- N ($p < .05$). Greater exclusion was associated with increased SAD-N for girls but not boys. Greater exclusion between T2 and T3 predicted increased social anxiety (SAD-G) at T3.
Yen, C.-F., Huang, M.-F., Kim, Y. S., Wang, P.-W., Tang, T.-C., Yeh, Y.-C., ... Yang, P. (2013). Association between types of involvement in school bullying and different dimensions of anxiety symptoms and the moderating effects of age and gender in Taiwanese adolescents. <i>Child Abuse and Neglect</i> , 37(4), 263–272.	Taiwan	Cross- sectional Regression analysis Self-report	5,537 adolescents in schools Gender: 2,955 girls (53.4%), 2,582 boys (46.6%) Age range: 11-18 years 2,499 (45.1%) less than 15 years, 3,038 (54.9%) older than 15 years	MASC – Taiwan version	School Bullying Experience Question- naire (Chinese version)	Victims of verbal and relational bullying, and physical bullying and belongings snatch, reported more severe social anxiety than non-victims ($p < .001$). Perpetrators of verbal and relational bullying reported more severe social anxiety than non-perpetrators ($p < .001$), while perpetrators of physical bullying reported less severe social anxiety ($p < .001$). Gender did not moderate the association between involvement in bullying and social anxiety.

Appendix D Quality Assessment Criteria

Quality assessment items	
1.	Is the hypothesis/aim/objective/research questions of the study clearly described? Must be explicit
2.	Are the characteristics of the participants included in the study clearly described?
3.	Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants?
4.	Were those participants who were prepared to participate representative of the entire population from which they were recruited? The proportion of those asked who agreed should be stated.
5.	Was the participation rate of eligible persons at least 50%?
6.	For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?
7.	Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?
8.	For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)?
9.	Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?
10.	Was the exposure(s) assessed more than once over time?
11.	Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?
12.	Have the characteristics of participants lost to follow-up been described?
13.	Were losses of participants to follow-up taken into account in data analysis?
14.	Was loss to follow-up after baseline 20% or less?
15.	Are the main findings of the study clearly described? Simple outcome data should be reported for all major findings so that the reader can check the major analyses and conclusions.
16.	Have actual probability values been consistently reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?
17.	Were the statistical tests used to assess the main outcomes appropriate? The statistical techniques used must be appropriate to the data.
18.	Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?

Appendix E Quality Assessment Scores for Studies Included in Review

Criteria Score: 0 = not met/no information available, 1 = met

Study	Criteria																		Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Cavanaugh & Buehler (2016). Adolescent Loneliness And Social Anxiety: The Role Of Multiple Sources Of Support.	1	1	0	1	0	1	1	1	1	0	1	1	0	1	0	1	1	1	13
DeWit et al. (2011). Perceptions Of Declining Classmate And Teacher Support Following The Transition To High School: Potential Correlates Of Increasing Student Mental Health Difficulties.	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	16
Flanagan, Erath, & Bierman (2008). Unique Associations Between Peer Relations And Social Anxiety In Early Adolescence.	1	1	0	1	1	0	0	0	1	n/a	1	n/a	n/a	n/a	1	0	1	1	9
Greco & Morris (2005). Factors Influencing The Link Between Social Anxiety And Peer Acceptance: Contributions Of Social Skills And Close Friendships During Middle Childhood.	1	1	0	1	0	0	0	1	1	n/a	1	n/a	n/a	n/a	1	0	1	0	8
Grills-Tauchel, Norton & Ollendick (2010). A Longitudinal Examination Of Factors Predicting Anxiety During The Transition To Middle School.	1	1	0	1	0	1	1	1	1	1	1	1	1	0	1	0	1	0	13

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Hamilton et al. (2016). The Temporal Sequence Of Social Anxiety And Depressive Symptoms Following Interpersonal Stressors During Adolescence.	1	1	1	0	0	0	1	1	1	0	1	1	1	1	1	0	1	0	12
Hamilton et al. (2013). Emotional Maltreatment, Peer Victimization, And Depressive Versus Anxiety Symptoms During Adolescence: Hopelessness As A Mediator.	1	1	1	0	0	0	1	1	1	0	1	1	1	0	1	0	1	1	12
Hutcherson & Epkins (2009). Differentiating Parent- And Peer-Related Interpersonal Correlates Of Depressive Symptoms And Social Anxiety In Preadolescent Girls.	1	1	0	0	0	0	0	1	1	n/a	1	n/a	n/a	n/a	1	0	1	1	8
La Greca & Lopez (1998). Social Anxiety Among Adolescents: Linkages With Peer Relations And Friendships.	1	1	0	0	1	0	0	1	1	n/a	1	n/a	n/a	n/a	1	0	1	0	8
La Greca & Harrison (2005). Adolescent Peer Relations, Friendships, And Romantic Relationships: Do They Predict Social Anxiety And Depression?	0	1	0	1	0	0	0	1	1	n/a	1	n/a	n/a	n/a	1	0	1	1	8
Loukas & Pasch (2013). Does School Connectedness Buffer The Impact Of Peer Victimization On Early Adolescents' Subsequent Adjustment Problems?	1	1	0	1	1	1	1	1	1	0	1	1	1	0	1	0	1	1	14
Lu et al. (2015). Peer Attachment And Social Anxiety: Gender As A Moderator Across Deaf And Hearing Adolescents.	1	1	1	1	0	0	0	1	1	n/a	1	n/a	n/a	n/a	1	0	1	0	9
Ranta et al. (2013). Peer Victimization And Social Phobia: A Follow-Up Study Among Adolescents.	1	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	15

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Siegel, La Greca, & Harrison (2009). Peer Victimization And Social Anxiety In Adolescents: Prospective And Reciprocal Relationships.	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	15
Starr & Davila (2008). Differentiating Interpersonal Correlates Of Depressive Symptoms And Social Anxiety In Adolescence: Implications For Models Of Comorbidity.	1	1	1	1	0	0	0	1	1	n/a	1	n/a	n/a	n/a	1	0	1	1	10
Storch, Brassard & Masia-Warner (2003). The Relationship Of Peer Victimization To Social Anxiety And Loneliness In Adolescence.	1	1	0	1	1	0	0	1	1	n/a	1	n/a	n/a	n/a	1	0	1	0	9
Storch & Masia-Warner (2004). The Relationship Of Peer Victimization To Social Anxiety And Loneliness In Adolescent Females.	1	1	0	1	1	0	0	1	1	n/a	1	n/a	n/a	n/a	1	0	1	1	10
Storch, Masia-Warner, Crisp & Klein (2005). Peer Victimization And Social Anxiety In Adolescence: A Prospective Study.	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	15
Storch, Phil, et al. (2003). Peer Victimization And Social-Psychological Adjustment In Hispanic And African-American Children.	1	1	1	1	1	0	0	1	1	n/a	1	n/a	n/a	n/a	1	0	1	1	11
Tillfors et al. (2012). Prospective Links Between Social Anxiety And Adolescent Peer Relations.	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	16
Van Der Ploeg et al. (2015). The Intensity Of Victimization: Associations With Children's Psychosocial Well-Being And Social Standing In The Classroom.	1	1	1	1	0	0	0	1	1	n/a	1	n/a	n/a	n/a	1	1	1	1	11

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Van Zalk & Van Zalk (2015). The Importance Of Perceived Care And Connectedness With Friends And Parents For Adolescent Social Anxiety.	1	1	0	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	14
Vernberg et al. (1992). Social Anxiety And Peer Relationships In Early Adolescence - A Prospective Analysis.	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	1	14
Yen et al. (2013). Association Between Types Of Involvement In School Bullying And Different Dimensions Of Anxiety Symptoms And The Moderating Effects Of Age And Gender In Taiwanese Adolescents.	1	1	0	1	1	0	0	0	1	n/a	1	n/a	n/a	n/a	n/a	1	1	1	1	10

Appendix F Social Anxiety Subscale of SCARED-R

Screeners

Below, you will find a number of statements, which refer to children's fears and anxiety. Please read each statement carefully and indicate how frequently you have experienced that symptom during the last 3 months: *never or almost never*, *sometimes*, or *often*.

Child version:

	Never or almost never (0)	Some- times (1)	Often (2)
I don't like to be with unknown people.			
I feel nervous with people I don't know well.			
It is hard for me to talk with unfamiliar people.			
I feel shy with people I don't know well.			
I feel nervous when I am with other children or adults and I have to do something while they watch me (for example, read aloud, speak, play a game, play a sport).			
I feel nervous when I am going to parties, dances, or any place where there will be people that I don't know well.			
I am shy.			

Parent version:

	Never or almost never (0)	Some- times (1)	Often (2)
My child doesn't like to be with unknown people.			
My child feels nervous with people he/she doesn't know well.			
It is hard for my child to talk with unfamiliar people.			
My child feels shy with people he/she doesn't know well.			
My child feels nervous when he/she is with other children or adults and he/she has to do something while they watch him/her (for example, read aloud, speak, play a game, play a sport).			
My child feels nervous when he/she is going to parties, dances, or any place where there will be people that he/she doesn't know well.			
My child is shy.			

Appendix G Interview Schedules

Parent/carer Interview Schedule (Version 1, 01/05/2016)

1. How long has your child been at X school? When did they start there?
2. Tell me a little bit about X. What is she like at home?
What sorts of things does X like doing?
3. What is X like at school? What things does she like about school?
Does she have any favourite lessons?
Are there any lessons that she does not like?
4. Sometimes children and young people can feel anxious in social situations. What types of situations make X feel socially anxious?
 - a. In school?
 - b. In class?
 - c. In the playground?
 - d. Out of school?
 - i. How does this make her feel?
 - ii. What is it about that which makes her feel anxious?
 - iii. How would X describe how she feels?
5. Are there any situations that X doesn't like or avoids?
 - a. What types of situations does she avoid?
 - b. Why do you think she avoids them?
 - c. What is it about this that she does not like?
 - d. Has it always been like this?
 - e. Are there any exceptions?
6. Tell me about a time when she felt anxious in a social situation.
 - a. What signs did she show?
 - b. How do you know when X is experiencing social anxiety?
 - c. What does her social anxiety look like?
 - d. How often does she experience social anxiety?
 - e. How does it make you feel?
7. How does X feel when they meet new people?
 - a. Does she like meeting new people?
 - i. Does she avoid places where there are people she doesn't know?
8. How does X feel about going to school?
 - a. What is it about school that makes her feel like that?
 - b. Does she feel anxious about transitions? What about their transition to secondary school?
 - c. What about the beginning/end of the school day?
9. What about X's friendships / peer relationships? Does X have any good friendships?
 - a. Who does X like to spend time with?

APPENDIX G

- b. What sort of things does X like to do with her friends?
 - c. What is X's understanding of friendships?
 - d. Does X see their friends outside of school? How often?
10. What are X's relationships with adults like?
- a. Family? Siblings? Extended family?
 - b. Teachers?
11. Does X attend any clubs?
- If yes: What does X like about these clubs? What does X dislike?
12. What impact does her social anxiety have on her everyday life?
- On them? At home? On school?
13. When X experiences social anxiety, is there anything that she does that helps her to feel better?
- a. How does she cope?
 - b. Why does that help?
14. Are there any things you do to help her feel better? What works?
- How does it help?
15. Are there any strategies you have tried that have not worked?
16. Are there any barriers that prevent you from being able to provide X with support?
17. Is there anything else you would like to say?
18. Do you have any questions for me?

Thank you for your time.

Teacher Interview Schedule (Version 1, 01/05/2016)

1. How long has X been at this school? When did they start there?
2. Tell me a little bit about X. What sorts of things does X like doing at school?
3. What is X like at school? What things does she like about school?
Does she have any favourite lessons?
Are there any lessons that she does not like?
4. Sometimes children and young people can feel anxious in social situations. What types of situations make X feel socially anxious?
 - a. In school?
 - b. In class?
 - c. In the playground?
 - d. Out of school?
 - i. How does this make her feel?
 - ii. What is it about that which makes them feel anxious?
 - iii. How would X describe how she feels?
5. Does X ever avoid social situations?
 - a. What types of situations does she avoid?
 - b. Why do you think she avoids them?
 - c. What is it about this that she does not like?
 - d. Are there any exceptions?
6. Tell me about a time when she felt anxious in a social situation.
 - a. What signs did she show?
 - b. How do you know when X is experiencing social anxiety?
 - c. What does her social anxiety look like?
 - d. How often does she experience social anxiety?
 - e. How does it make you feel?
7. How does X feel when they meet new people?
 - a. Does she like meeting new people?
 - i. Does she avoid places where there are people she doesn't know?
8. How does X feel about going to school?
 - a. What is it about school that makes her feel like that?
 - b. Does she feel anxious about transitions? What about their transition to secondary school?
 - c. What about the beginning/end of the school day?
9. What about X's friendships/peer relationships? Does X have any good friendships?
 - a. Who does X like to spend time with?
 - b. What sort of things does X like to do with her friends?
 - c. What is X's understanding of friendships?
 - d. Does X see their friends outside of school? How often?
10. What are X's relationships with adults like?
 - a. Family? Siblings? Extended family?
 - b. Teachers? TA's?

APPENDIX G

11. Does X attend any clubs?

If yes: What does X like about these clubs? What does X dislike?

12. What impact does X's social anxiety have on her everyday life?
On them? At home? On school?

13. When X experiences social anxiety, is there anything that she does that helps her to feel better?

- a. How does she cope?
- b. Why does that help?

14. Are there any things you do to help her feel better? What works?
- How does it help?

15. Are there any strategies you have tried that have not worked?

16. Are there any barriers that prevent you from being able to provide X with support?

17. Is there anything else you would like to say?

18. Do you have any questions for me?

Thank you for your time.

Child Interview Schedule (Version 2, 29/06/2016)

I thought it might be nice to start off by talking a little bit about your experiences at school.

1. How long have you been at this school? When did you start here?
2. What are your favourite lessons?
3. If you were having a good day at school, what would you be doing?
 - Where would you be? What lesson would you be in?
 - Who would you be with?
4. If you were having a bad day at school, what would I see you doing?
 - Where would you be? What lesson would you be in?
 - Who would you be with?

We are going to do an activity with Lego. Think about the kind of classroom you would like to have – your dream classroom. I would like you to build it out of Lego. There are no right and wrong ways of building it. Bricks can represent anything you like. Have a go at building your dream classroom.

As they are building their dream classroom, ask:

- What's that? What's happening here? Why is that important?

(While asking questions, draw an outline of the Lego classroom and write the responses alongside)

5. What are the most important things in this classroom?
6. What is your favourite thing in this classroom?
7. If you were to walk into this classroom how would you feel?
 - a. Why would you feel this way?
 - b. What makes you feel this way?
8. Who else is in your classroom?
 - a. Students?
 - b. Friends? What does a friend mean to you?
 - c. Adults?
 - d. Animals?

Why are they in your classroom?

9. What are you doing in this classroom?
 - a. Where are you sitting? Why?
 - b. Who are you sitting next to? Why?
10. What are other students doing?
 - a. Where are they?
11. What are the adults doing?
 - a. Where are they?
 - b. What are they doing to help?
12. What happens at break time for the students?
 - a. What are you doing at breaktime?

APPENDIX G

- b. Where are you at breaktime?
- c. How do you feel at breaktime?

The ideal playground or breaktime social area (e.g. lunch hall) can be added with Lego.

Now think about the kind of classroom you would NOT like to have – your worst classroom. I would like you to build it out of Lego. There are no right and wrong ways of building it. Remember, bricks can represent anything you like. Have a go at building your worst classroom.

As they are building their dream classroom, ask:

- What's that? What's happening here? Why is that in your worst classroom?

(While asking questions, draw an outline of the Lego classroom and write the responses alongside)

13. What are the most important things in this classroom?
 14. What is the worst thing in this classroom?
 15. If you were to walk into this classroom how would you feel?
 16. Who else is in your classroom?
 - a. Students?
 - b. Friends?
 - c. Adults?
 - d. Animals?
- Why are they in your classroom?
17. What are you doing in this classroom?
 - a. Where are you sitting? Why?
 - b. Who are you sitting next to? Why?
 18. What are other students doing?
 - a. Where are they?
 19. What are the adults doing?
 - a. Where are they?
 - b. What are they doing to help?
 20. What happens at break time for the students?
 - a. What are you doing at breaktime?
 - b. Where are you at breaktime?
 - c. How do you feel at breaktime?

The least ideal playground or breaktime social area (e.g. lunch hall) can be added with Lego.

Is there anything else you would like to tell me? Do you have any questions for me?

Thank you for meeting with me

Appendix H Ideal Classroom Activity

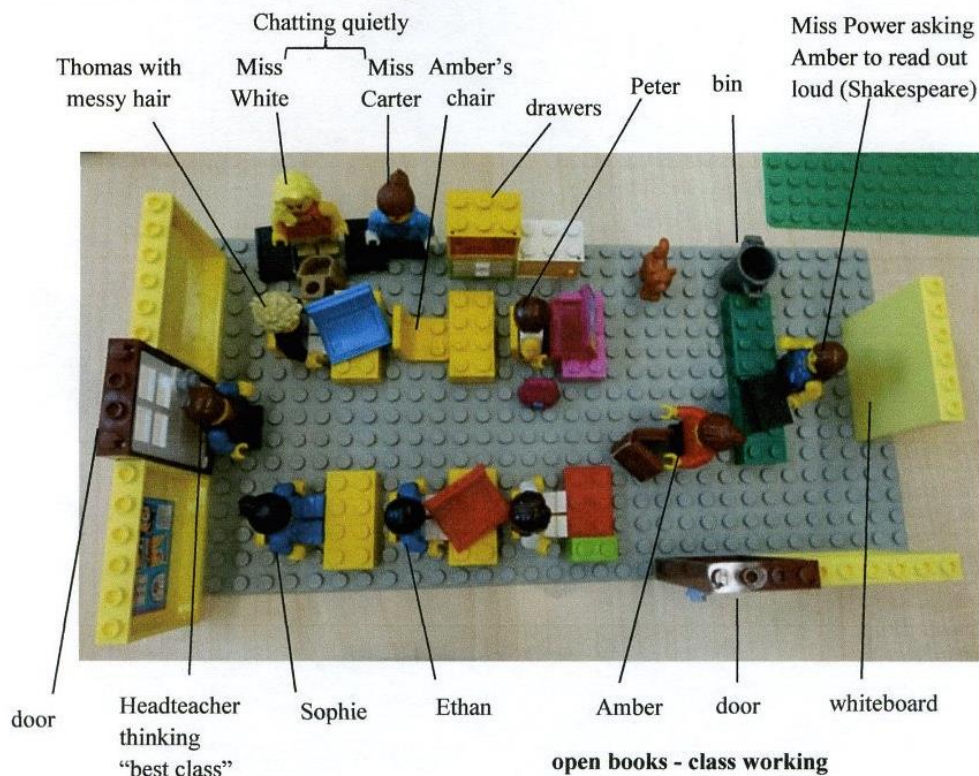
Lego for Ideal Classroom Activity



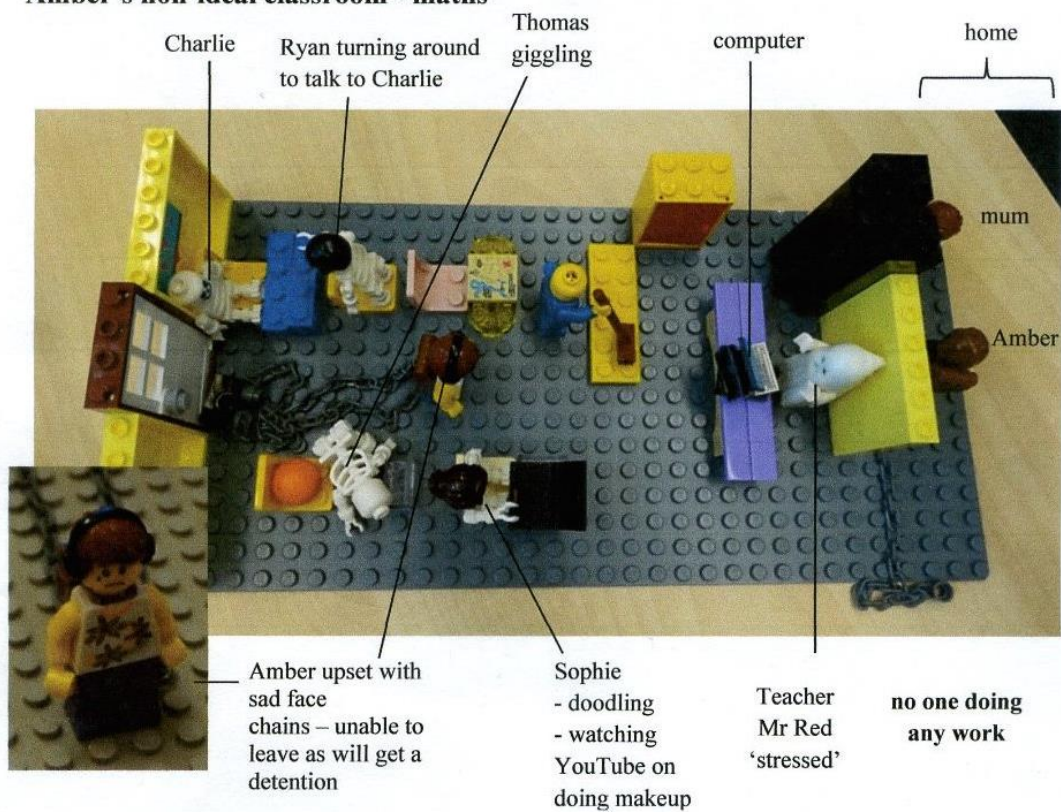
Lego Education Build to Express (45110): 200 pieces		
10 extra people	Blackboard	Cooking equipment
15 chairs	Music equipment	Furniture (large cupboard, small cupboards and drawers)
Animals (including cat, dog)	Stools and bench	Walls
4 books	Flowers	2 extra skeletons
10 laptops / computer	2 doors	1 ghost with chain
2 clocks	Toolbox	Four 6x4s
5 bags	Megaphone	Two 8x4s
Sport equipment	Speaker tannoy	Two half-octagons
Bin	Scissors and ruler	
Art equipment	Food items (including apples, cookies, milk)	
Science equipment		

Triad 1

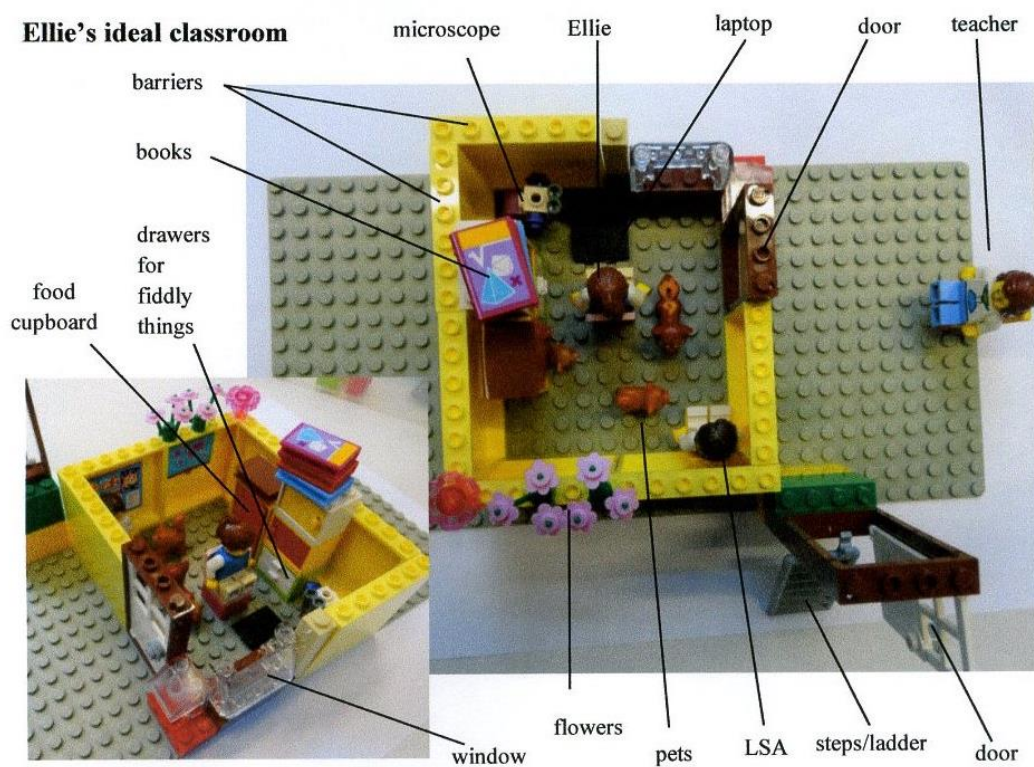
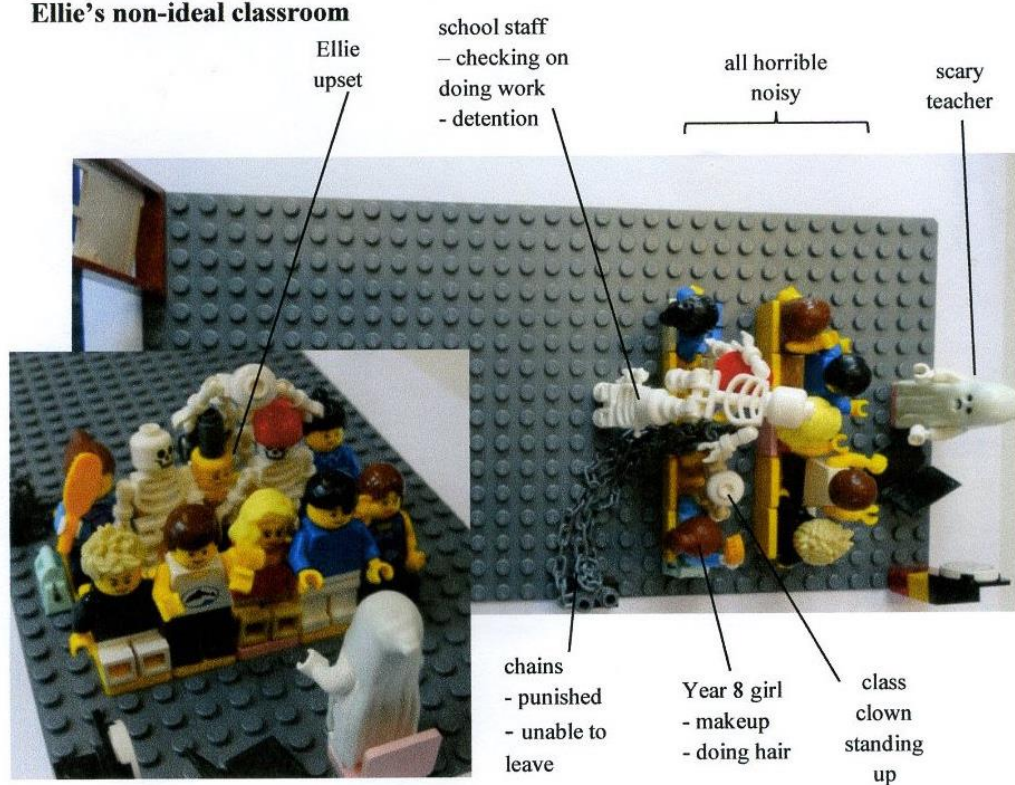
Amber's ideal classroom - English



Amber's non-ideal classroom - maths

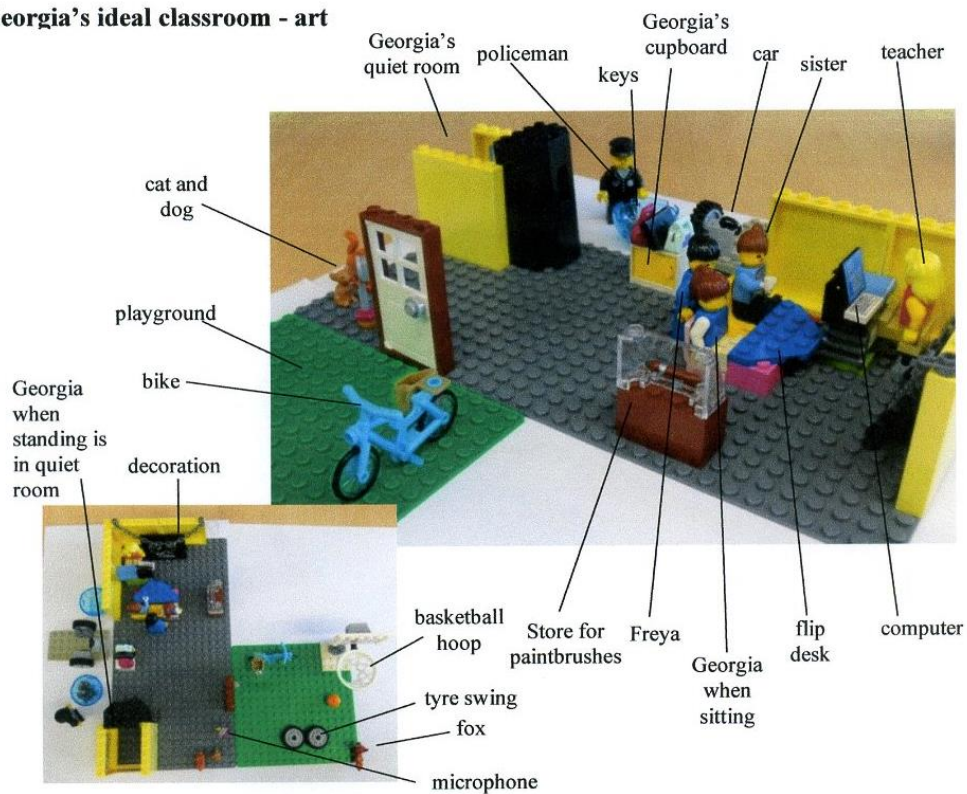


Triad 2

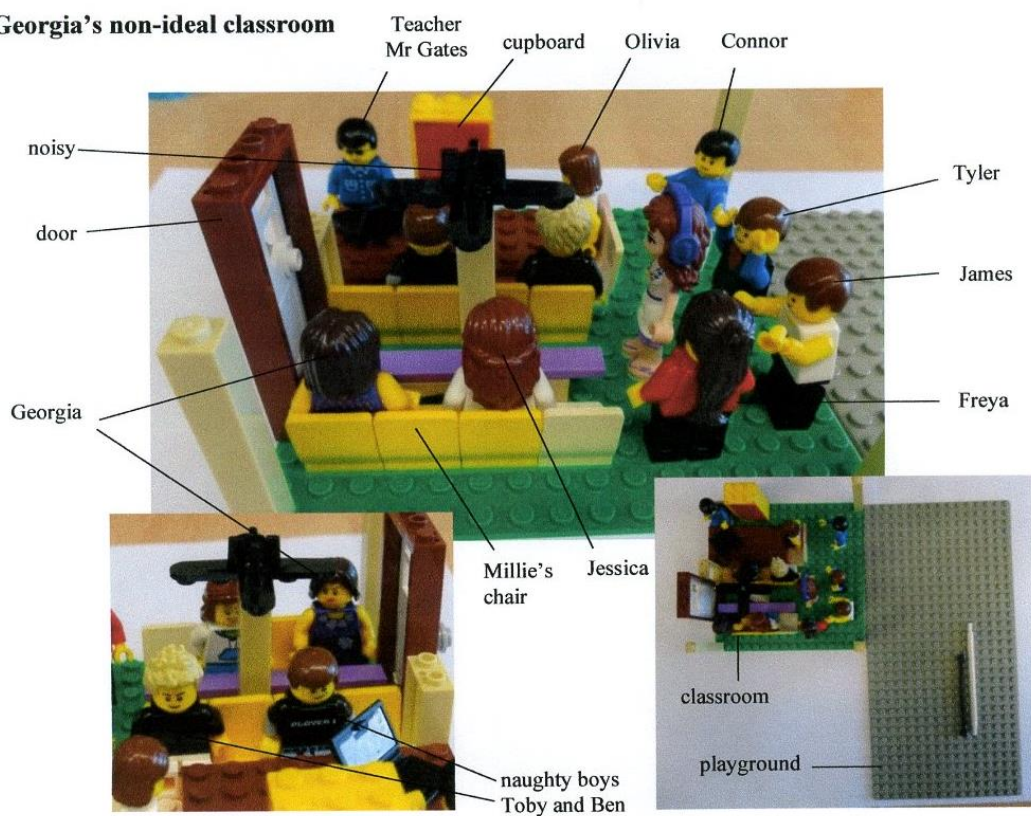
Ellie's ideal classroom**Ellie's non-ideal classroom**

Triad 3

Georgia's ideal classroom - art

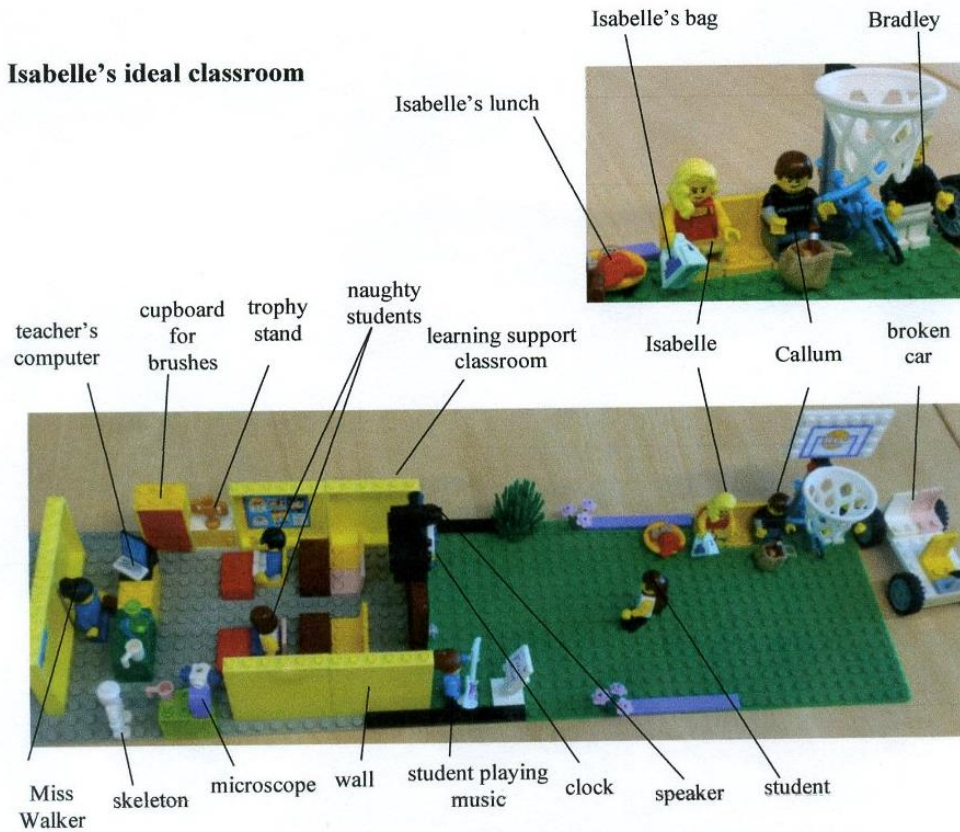


Georgia's non-ideal classroom

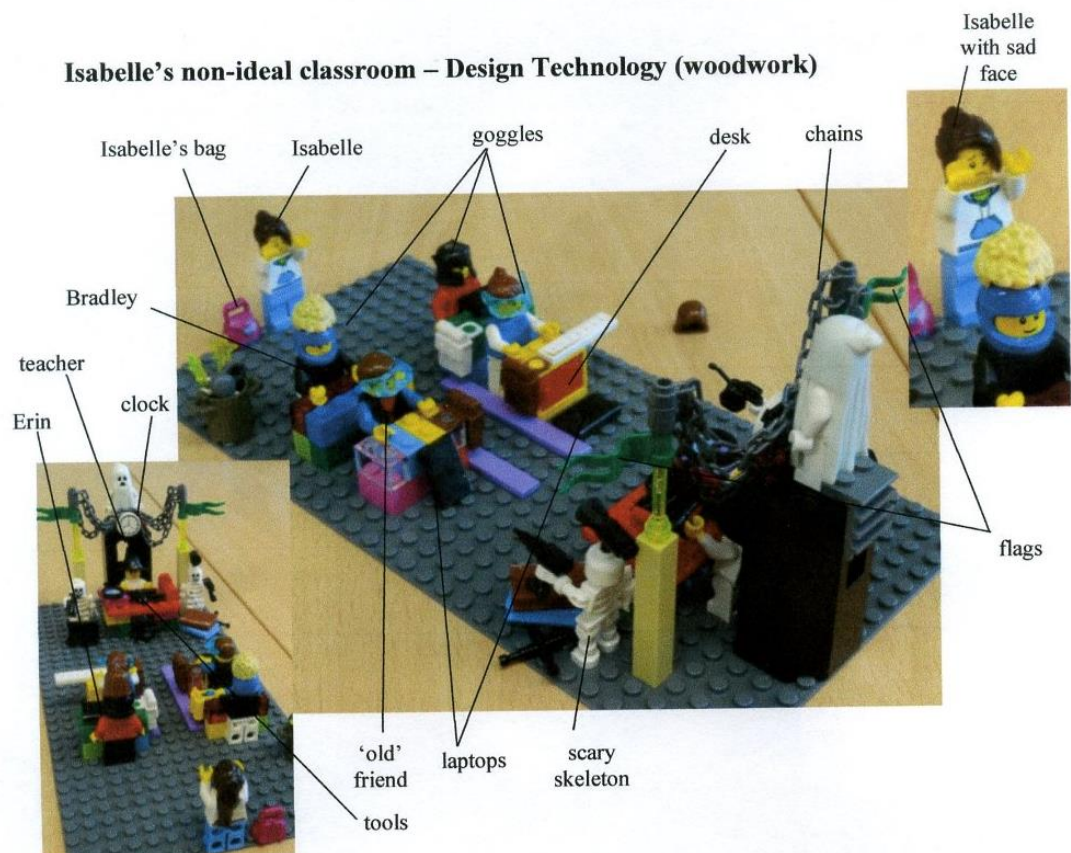


Triad 4

Isabelle's ideal classroom



Isabelle's non-ideal classroom – Design Technology (woodwork)



Appendix I Ethical Approval

From: Ergo <ergo@soton.ac.uk>

Date: Wednesday, 6 July 2016 08:57

To: Hanna Kovshoff

Subject: RGO research approval notification

The Research Governance Office has reviewed and approved the research submission of one (or more) of your students (Leanne Pickering)

They can begin research unless they are still awaiting specific Health and Safety approval (e.g. for a Genetic or Biological Materials Risk Assessment) or external ethics review (e.g. NRES).

Submission Number 19489.

Submission Title "Understanding the experience of social anxiety in adolescent girls with Autism Spectrum Disorder"

The following comments have been made:

Submission ID : 19489

Submission Name: Understanding the experience of social anxiety in adolescent girls with Autism Spectrum Disorder

Date : 06 Jul 2016

Created by : Leanne Pickering

ERGO : Ethics and Research Governance Online

<http://www.ergo.soton.ac.uk>

DO NOT REPLY TO THIS EMAIL

Appendix J Headteacher Information Sheet



Headteacher Information Sheet (Version 3, 20/09/2016)

Study title: Understanding the experience of social anxiety in adolescent girls with Autism Spectrum Disorder

Researcher: Leanne Pickering

ERGO Study ID number: 19489

What is the research about?

I am a Trainee Educational Psychologist from the University of Southampton currently undertaking research as part of my thesis for the Doctorate in Educational Psychology. The research explores the experience of social anxiety in adolescent girls with Autism Spectrum Disorder (ASD) from the perspective of young people themselves, their parents and teachers. The aim of the research is to develop a theory of social anxiety in girls with ASD by gathering information from these multiple perspectives.

Why have we been chosen?

I am contacting mainstream secondary schools to ask whether you know of any young adolescents who meet the following inclusion criteria. I am looking to recruit adolescent girls with ASD, aged between 11 and 16 years (Key Stage 3 and 4), who experience high levels of social anxiety. As it is essential that the girls are verbally able to talk about their experiences, their English speaking and listening level would need to be in-line with age related expectations. In addition, I am also looking to recruit one parent and one teacher for each child, who can talk about their own experiences of the child's social anxiety.

What will happen next?

I will be contacting you shortly to explain the research in full and to ask whether you know of any pupils who meet the above criteria. I will then need your help to contact parents in order to send out information sheets and consent forms. I am also hoping that you will be able to identify a teacher who knows the child well and would be willing to participate in my research. I will then send you an information sheet and consent form to forward to them.

What happens once participants are recruited?

After recruiting children, parents and teachers, I will liaise with them directly to arrange interviews lasting between 30 and 60 minutes. Where possible, it would be helpful to carry out interviews on school premises so that children and teachers are in a familiar setting. Parents and teachers will be interviewed directly about their experiences, while interviews with adolescents will be based around 'Building the Ideal Classroom', an activity using Lego that involves asking children to build the kind of classroom they would most like to have (ideal classroom) and least like to have (worst classroom). It is hoped that this will facilitate children to discuss their social anxieties without being asked about these directly. Children will also be given the option of choosing to draw their ideal and non-ideal classrooms if preferred. Where children choose to build with Lego, I will draw an outline of their Lego classrooms and make notes alongside. Photos of the

completed classrooms will also be taken and stored securely. Interviews will be audio recorded and transcribed word for word, with additional written notes made during the interview to support transcription.

Are there any benefits in taking part?

Taking part in this research will help contribute to our understanding of social anxiety in girls with ASD. It is hoped that this will help inform current practice in working with and supporting girls with ASD who experience high levels of social anxiety.

Are there any risks involved?

I will be asking participants to discuss their experiences of social anxiety in adolescent girls with ASD. For young people themselves, this could lead to a temporary increase in anxiety level. The purpose of the 'Building (or drawing) the Ideal Classroom' activity is to minimise the risk to adolescents by providing an indirect way to talk to them about their social anxiety. However, adolescents will also be able to choose whether they have a familiar adult present with them during the interview. Participants will only be asked to share as much information as they feel comfortable with and interviews can be stopped at any time.

Will participation be confidential?

This study will comply with the Data Protection Act and the University of Southampton data protection guidelines. Audio recordings of the interviews will be deleted from the device as soon as possible and transferred to password protected storage. When transcribed, names (including people, schools and any identifying information) will be removed from the interview and replaced with pseudonyms. The audio-recording will then be deleted.

What happens if participants change their mind?

All participants have the right to withdraw from the study at any time without their rights being affected. If they wish to withdraw, they will be asked to inform the researcher using the contact details below. All data from the triad will be completely destroyed. However, if consent is withdrawn by a participating teacher, attempts will first be made to recruit an appropriate replacement prior to destroying child and parent data.

What happens if something goes wrong?

If participants have any questions about their rights as a participant in this research, or feel that they have been placed at risk or have a complaint, they may contact the Chair of the Ethics Committee, Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: +44 (0)23 8059 3856, email fshs-rso@soton.ac.uk

Where can I get more information?

Leanne Pickering: lp1g14@soton.ac.uk

Appendix K Parent Letter, Information Sheets and Consent

UNIVERSITY OF
Southampton

Building 44,
Highfield Campus
University of Southampton
SO17 1BJ

ERGO Study ID number: 19489

Dear Parents and Guardians,

My name is Leanne Pickering and I am a Trainee Educational Psychologist at the University of Southampton. I am writing to invite you and your child to be involved in a research project exploring the experience of social anxiety in adolescent girls with Autism Spectrum Disorder (ASD). Many girls with ASD experience high levels of social anxiety. I am looking to gain insight into the lived experiences of girls with ASD, as well as their parents and teachers, in order to increase our understanding of social anxiety. This may help to inform the practice of schools and professionals providing support for girls experiencing high levels of social anxiety.

I very much hope that you and your child would like to take part in this research and have enclosed information sheets for you to read. After reading, please talk to your child about the research and discuss whether you would both be willing to take part. If you would be happy to participate in this research project, or have any further questions, please contact me on or email lp1g14@soton.ac.uk.

Yours sincerely,



Leanne Pickering

Trainee Educational Psychologist

Parent / Guardian Information Sheet (Version 3, 20/09/2016)

Study title: Understanding the experience of social anxiety in adolescent girls with Autism Spectrum Disorder

Researcher: Leanne Pickering

ERGO Study ID number: 19489

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

I am a Trainee Educational Psychologist from the University of Southampton currently undertaking research as part of my thesis for the Doctorate in Educational Psychology. The research explores the experience of social anxiety in adolescent girls with Autism Spectrum Disorder (ASD) from the perspective of young people themselves, their parents and teachers. The aim of the research is to develop a theory of social anxiety in girls with ASD based on these multiple perspectives.

Why have we been chosen?

I have been in contact with mainstream secondary schools and autism support groups and it has been suggested that your child may meet the criteria for inclusion in this research. I am looking to recruit adolescent girls with ASD, aged between 11 and 16 years, who experience high levels of social anxiety and are verbally able to talk about their experiences. In addition, I am also looking to recruit one parent and one teacher for each child, who can talk about their own experiences of the child's social anxiety.

What will happen to us if we take part?

If both you and your child choose to participate, I will contact you to explain the process in full and send you an anxiety screener to complete about your child. I will then arrange a suitable time and place to meet with you for a 30–60 minute interview. Where possible, I will arrange to meet with you for an individual interview directly before meeting with your child. Although parent and child interviews will be carried out separately, your child will have the choice of having a familiar adult present during the interview. I will ask you to sign two consent forms before participating in the interview, one for yourself and one for your child. The interviews will be audio recorded and transcribed word for word, with additional written notes made during the interview to support transcription. You can withdraw from the research at any time.

When meeting with your child, I will first ask them if they are happy to take part in the research project before completing a brief self-report anxiety questionnaire. The interview with your child will then be based around 'Building the Ideal Classroom', an activity using Lego that involves asking children to build the kind of classroom they would most like to have (ideal classroom) and least like to have (worst classroom). It is hoped that this will facilitate them to discuss their social anxieties without being asked about these directly. Children will also

be given the option of choosing to draw their ideal and non-ideal classrooms if preferred. Where children choose to build with Lego, I will draw an outline of their Lego classrooms and make notes alongside. Photos of the completed classrooms will also be taken and stored securely.

As the research proceeds, it is possible that follow up interviews with participants will be needed to further explore topics as they arise. If you and your child are happy to participate, you may be contacted again in the future to arrange follow-up interviews.

Are there any benefits in my taking part?

Taking part in this research will help contribute to our understanding of social anxiety in adolescent girls with ASD. It is hoped that this will help inform current practice in working with and supporting girls with ASD who experience high levels of social anxiety.

Are there any risks involved?

I will be asking you and your child to discuss your child's experiences of social anxiety. While I am aware that this may be emotive and sensitive in nature, I only wish for you to share as much information as you feel comfortable with. Interviews can also be stopped at any time as needed.

To minimise the risk to your child, the 'Building (or drawing) the Ideal Classroom' activity is designed to provide an indirect way to talk to them about their social anxiety. However, your child will also be able to choose whether they have a familiar adult present with them during the interview.

Will our participation be confidential?

This study will comply with the Data Protection Act and the University of Southampton data protection guidelines. Audio recordings of the interviews will be deleted from the device as soon as possible and transferred to password protected storage. When transcribed, names (including people, schools and any identifying information) will be removed from the interview and replaced with pseudonyms. The audio-recording will then be deleted.

What happens if we change our minds?

You and your child have the right to withdraw from the study at any time without your rights being affected. If you and your child wish to withdraw, please inform the researcher using the contact details below. On withdrawal, all data collected from you and your child will be completely destroyed, alongside the data from your child's teacher.

What happens if something goes wrong?

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk or have a complaint, you may contact the Chair of the Ethics Committee, Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: +44 (0)23 8059 3856, email fshs-rso@soton.ac.uk

Where can we get more information?

Leanne Pickering: lp1g14@soton.ac.uk

Pupil Information Sheet (Version 3, 20/09/2016)

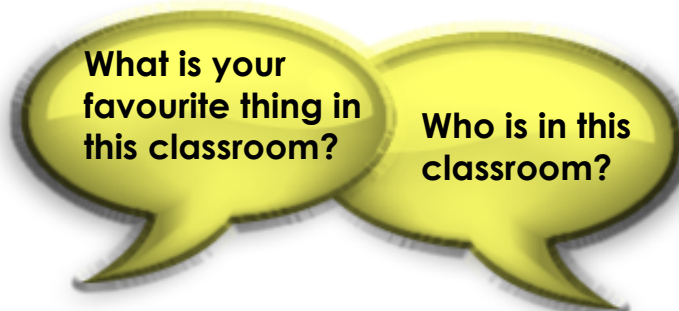
My name is Leanne and I am running a project about young people's experiences at school and the things that worry them. I would like to invite you to be a part of this by telling me about your experiences.

I have contacted your parents and school, and invited them to help me with my project. Now I would like to know if you would be interested in helping me.



If you decide to join in, I will meet with you at school at an agreed time. I will ask you to build two classrooms out of Lego (one you would like and one you would not like) and we will talk about what you are building. If you would prefer not to build with Lego, you can draw instead.

I might ask you some questions like:



Before you decide whether you would like to be part of my project, please talk to your parents and teachers about it. If you would like to join in, let your parents know. If you would prefer not to, then that's okay.

I hope that you will choose to help me with my project. Please remember that you can change your mind at any time. If you no longer want to take part just tell me, a parent or a teacher. If you do take part, I am happy for you to have a familiar adult with you, such as a Teaching Assistant or parent.

Thank you for reading this. If you have any questions, your parents or teachers can contact me at any time.

Hope to see you soon!

Leanne

PARENT / GUARDIAN CONSENT FORM
(Version 3, 20/09/2016)

Study title: Understanding the experience of social anxiety in adolescent girls with Autism Spectrum Disorder

Researcher names: Leanne Pickering
 ERGO Study ID number: 19489

Please initial the box(es) if you agree with the statement(s):

I have read and understood the Parent / Guardian Information Sheet (Version 3, 20/09/2016) and have had the opportunity to ask questions about the study.

☐

I agree to take part in this research project and agree for my data to be used for the purpose of this study.

☐

I understand my participation is voluntary and I may withdraw at any time without my legal rights being affected.

☐

I agree that the interview will be audio-recorded and that the researchers can use anonymous quotes from my interview when reporting the study.

☐

Name of participant (print name).....

Signature of participant.....

Date.....

CHILD CONSENT FORM FOR PARENTS OR GUARDIANS
(Version 3, 20/09/2016)

Researcher copy – Please return this copy to the researcher

Study title: Understanding the experience of social anxiety in adolescent girls with Autism Spectrum Disorder

Researcher names: Leanne Pickering

ERGO Study ID number: 19489

Please initial the box(es) if you agree with the statement(s):

I have read and understood the Parent / Guardian Information Sheet (Version 3, 20/09/2016) and know that I can contact the above named researcher (lp1g14@soton.ac.uk) to discuss the study at any time.

☐

I agree for my child to take part in this research project and for my child's data to be used for the purpose of this study.

☐

I understand participation is voluntary and that we can withdraw at any time, without giving any reason.

☐

I agree that my child's interview will be audio-recorded and that the researchers can use anonymous quotes when reporting the study.

☐

Name of child (print name).....

Name of parent/guardian (print name).....

Signature of parent/guardian.....

Date.....

CHILD CONSENT FORM FOR PARENTS OR GUARDIANS
(Version 3, 20/09/2016)

Parent / Guardian copy – Please keep this copy for your records

Study title: Understanding the experience of social anxiety in adolescent girls with Autism Spectrum Disorder

Researcher names: Leanne Pickering

ERGO Study ID number: 19489

Please initial the box(es) if you agree with the statement(s):

I have read and understood the Parent / Guardian Information Sheet (Version 3, 20/09/2016) and know that I can contact the above named researcher (lp1g14@soton.ac.uk) to discuss the study at any time.

☐

I agree for my child to take part in this research project and for my child's data to be used for the purpose of this study.

☐

I understand participation is voluntary and that we can withdraw at any time, without giving any reason.

☐

I agree that my child's interview will be audio-recorded and that the researchers can use anonymous quotes when reporting the study.

☐

Name of child (print name).....

Name of parent/guardian (print name).....

Signature of parent/guardian.....

Date.....

YOUNG PERSON ASSENT FORM (Version 1, 01/05/2016)

Understanding the Experience of Social Anxiety in Girls

Please answer the questions below:

Have you read about this project (or had it read to you)?	YES	NO
Has somebody explained this project to you?	YES	NO
Do you understand what this project is about?	YES	NO
Have you asked all the questions you want?	YES	NO
Have you had your questions answered clearly?	YES	NO
Do you understand it's OK to stop taking part at any time?	YES	NO
Would you like to take part?	YES	NO

If you would like to take part, please write your name and today's date:

Your name _____

Date _____

The person who explained this project to you needs to sign too:

Print Name _____ Date _____

Signature _____

Appendix L Teacher Letter, Information Sheet and Consent

UNIVERSITY OF
Southampton

Building 44,
Highfield Campus
University of Southampton
SO17 1BJ

ERGO Study ID number: 19489

Dear *[Teachers name]*,

My name is Leanne Pickering and I am a Trainee Educational Psychologist at the University of Southampton. I am writing to invite you to participate in a research project exploring the experience of social anxiety in adolescent girls with Autism Spectrum Disorder (ASD). Many girls with ASD experience high levels of social anxiety. I am looking to gain insight into the lived experiences of adolescent girls with ASD, as well as their parents and teachers, in order to increase our understanding of social anxiety. This may help to inform the practice of schools and professionals providing support for girls experiencing high levels of social anxiety.

I have contacted *[Headteacher's name]* regarding my research and they have identified *[Child's full name]* as an adolescent girl with ASD, who experiences social anxiety. I am contacting *[Child's first name]* and her parents to invite them to participate in my research and, as a teacher who knows *[Child's first name]* well, I would also like to invite you to take part. I am enclosing an information sheet for you to read which provides full details about the research.

Please take the time to read the enclosed information sheet. If you would be happy to participate in this research project, or have any further questions, please contact me on _____ or email lp1g14@soton.ac.uk.

Yours sincerely,



Leanne Pickering

Trainee Educational Psychologist

Teacher Information Sheet (Version 3, 20/06/2016)

Study title: Understanding the experience of social anxiety in adolescent girls with Autism Spectrum Disorder

Researcher: Leanne Pickering

ERGO Study ID number: 19489

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

I am a Trainee Educational Psychologist from the University of Southampton currently undertaking research as part of my thesis for the Doctorate in Educational Psychology. The research explores the experience of social anxiety in adolescent girls with Autism Spectrum Disorder (ASD) from the perspective of young people themselves, their parents and teachers. The aim of the research is to develop a theory of social anxiety in girls with ASD based on these multiple perspectives.

Why have I been chosen?

I have been in contact with mainstream secondary schools and autism support groups who have helped to identify children who may meet the criteria for inclusion in this research. I am looking to recruit adolescent girls with ASD, aged between 11 and 16 years, who experience high levels of social anxiety and are verbally able to talk about their experiences. In addition, I am also looking to recruit one parent and one teacher for each child, who can talk about their own experiences of the child's social anxiety. As you are a teacher of a child who meets the inclusion criteria, I am inviting you to participate in this research.

What will happen to me if I take part?

If you choose to participate, I will contact you to explain the process in full and to arrange a suitable time to meet with you in your workplace for a 30–60 minute interview. I will ask you to sign a consent form before participating in the interview. The interview will be audio recorded and transcribed word for word, with additional written notes made during the interview to support transcription. You can withdraw from the research at any time. As the research proceeds, it is possible that follow up interviews with participants will be needed to further explore topics as they arise. If you are happy to participate, you may be contacted again in the future to arrange a follow-up interview.

Are there any benefits in my taking part?

Taking part in this research will help contribute to our understanding of social anxiety in adolescent girls with ASD. It is hoped that this will help inform current practice in working with and supporting girls with ASD who experience high levels of social anxiety.

Are there any risks involved?

I will be asking you to discuss your experiences of working with a child with ASD with high levels of social anxiety. While I am aware that this may be emotive and sensitive in nature, I only wish for you to share as much information as you feel comfortable with. Interviews can also be stopped at any time as needed.

Will my participation be confidential?

This study will comply with the Data Protection Act and the University of Southampton data protection guidelines. Audio recordings of the interviews will be deleted from the device as soon as possible and transferred to password protected storage. When transcribed, names (including people, schools and any identifying information) will be removed from the interview and replaced with pseudonyms. The audio-recording will then be deleted.

What happens if I change my mind?

You have the right to withdraw from the study at any time without your rights being affected. If you wish to withdraw, please inform the researcher using the contact details below. All data collected from you will be completely destroyed. Attempts will then be made to recruit an appropriate replacement teacher prior to destroying child and parent data.

What happens if something goes wrong?

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk or have a complaint, you may contact the Chair of the Ethics Committee, Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: +44 (0)23 8059 3856, email fshs-rso@soton.ac.uk

Where can I get more information?

Leanne Pickering: lp1g14@soton.ac.uk

TEACHER CONSENT FORM (Version 3, 20/09/2016)

Study title: Understanding the experience of social anxiety in adolescent girls with Autism Spectrum Disorder

Researcher names: Leanne Pickering

ERGO Study ID number: 19489

Please initial the box(es) if you agree with the statement(s):

I have read and understood the Teacher Information Sheet (Version 3, 20/09/2016) and have had the opportunity to ask questions about the study.

☐

I agree to take part in this research project and agree for my data to be used for the purpose of this study.

☐

I understand my participation is voluntary and I may withdraw at any time without my legal rights being affected.

☐

I agree that the interview will be audio-recorded and that the researchers can use anonymous quotes from my interview when reporting the study.

☐

Name of participant (print name).....

Signature of participant.....

Date.....

Appendix M Debriefing Statements

Researcher: Leanne Pickering



ERGO Study ID number: 19489

Understanding the experience of social anxiety in adolescent girls with ASD

Participant Debriefing Statement (Version 2, 20/09/2016)

Thank you for participating in my doctoral research about the experience of social anxiety in adolescent girls with Autism Spectrum Disorder. The aim of this research was to answer the following questions:

1. What are the experiences of social anxiety in adolescent girls with ASD who attend mainstream secondary school provision?
2. How do parents/carers and teachers perceive social anxiety in adolescent girls with ASD?

The purpose of this research is to gather information from multiple perspectives in order to help support the development of a theory about the experience of social anxiety in adolescent girls with ASD. It is hoped that this will increase our understanding of social anxiety in girls with ASD and help us to provide effective support. Although the results of this study may report direct quotes, they will not include your name or any other identifying characteristics. The research did not use deception of any kind.

If you have any concerns regarding autism following this research, you may find it helpful to contact the charity [name of Charity] on [phone number] for further support or advice. If you feel that you would like to speak to professionals regarding concerns about anxiety, please speak to either a GP or contact [name of area/county] Child and Adolescent Mental Health Service (CAMHS) on [phone number].

You may have a copy of this summary if you wish, and a summary of the research findings once my project is completed. Please let the researcher know if you would like to receive information regarding the research findings. If you have any further questions please contact the researcher Leanne Pickering at: lp1g14@soton.ac.uk

Thank you for your participation in this research.

Signature _____

Date _____

Name _____

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: +44 (0)23 8059 3856, email fshs-rso@soton.ac.uk

Thank You Letter (Version 1, 01/05/2016)

Dear *[name of child]*,

Thank you for helping me with my project about young people's experiences at school and the things that worry them. The purpose of this project was to help me learn more about girls' experiences of social worries in school.



I hope that this project will help teachers and other adults to understand girls' experiences so that they will be able to provide effective support. Although this project may use direct quotes of things you said, it will not include your name or any other identifying information.

If you have any thoughts or worries after helping me with this project, please talk to a teacher, support assistant or your parents about these. I have given them some extra information about people they can contact who may be able to provide you with some additional support.

If you have any further questions, your parents and teachers have my contact details. I would be happy to answer any questions you may have. If I need any further help with my project, I will contact your parents and teachers to let them know.

Thank you for helping me with my project.

Leanne

Appendix N Extracts of Interview Transcripts

(All transcripts are fully anonymised)

Research Title: Understanding social anxiety in adolescent girls with ASD

Interview date, time, location: 14/03/17, 11.00, Secondary school staff meeting room

Interviewer: LP ("I")

Interviewee: Girl 4 ("G4")

Interview Transcript

- 330 I: Okay, we're going to put this one to one side and have a go at building the
331 kind of classroom you would not like to have. Your worst classroom. So like
332 before, you're going to build it out of Lego. There's no right or wrong way of
333 building it and the bricks can represent anything you like. And while you're
334 starting to build that, I'm going to take a photo of your ideal classroom if
335 that's okay.
- 336 G4: Okay. That's fine. Oh, by the way he's a boy on the bike there.
- 337 I: There's a boy on the bike. Who's the boy?
- 338 G4: Umm. Okay, I'm literally just going to say Bradley.
- 339 I: Bradley, who's Bradley.
- 340 G4: Bradley, who I really hate.
- 341 I: Oh, okay.
- 342 G4: You know he bullied me for a, he nearly bullied me for an entire for an entire
343 month.
- 344 I: Bradley? Was this when you first started here?
- 345 G4: Yeah.
- 346 I: That doesn't sound good.
- 347 G4: No it does not.
- 348 I: And how did that make you feel?
- 349 G4: Okay, this car is just going to stay there. Bradley just made me feel like arghh.
350 Just arghhhh. Angry, 'cause I just hate him. A lot.
- 351 I: So what sort of things did he do?
- 352 G4: You know, the usual stuff that someone would do to get the other person, to
353 get the one that they, you know like when people do things that you really
354 hate. So he found very easy ways to annoy me. And I can get annoyed pretty
355 easily.
- 356 I: Is he in your ideal classroom or your non-ideal classroom?
- 357 G4: You know this boy actually looks a lot like Bradley. I'm just going to use this
358 one here as a wall.
- 359 I: Okay, we can imagine the walls. We don't have to have the walls around it.
- 360 G4: Okay so just imagine walls. This here is err, this one here is going to be where
361 the teacher stands.
- 362 I: Okay, do we know what lesson this is?
- 363 G4: Nope. We don't know which lesson this is.
- 364 I: Remember you are trying to build the kind of classroom you would not like to
365 have.
- 366 G: Okay, worst classroom ever.
- 367 I: So what's going to be in your worst classroom ever?
- 368 G4: I've got it. Okay, I have it pictured in my head so I cannot go wrong.

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369 I: That's good.

370 G4: If I go wrong then I'll be really dah.

371 I: So now all we need to do is

372 G4: build it

373 I: get it built so I can see what you're imagining in your head. There's no way I

374 would have guessed from looking at your ideal classroom, I don't think I

375 would ever have pictured that.

376 G4: Okay.

377 I: You've got X block and then some outside space. What do you like doing

378 outside?

379 G4: I like listening to the birds, looking at the plants.

380 I: Why do you like that?

381 G4: I don't know. I think it it makes me feel well, you know, calm.

382 I: It makes you feel calm.

383 G4: Sometimes if I can't get to sleep, my Mum gets her phone and puts on whale

384 sounds.

385 I: Do you like whales?

386 G4: It's my dream to see them, especially an Orca. They're my absolute favourite.

387 An Orca doesn't actually come under a whale. It's actually the largest member

388 of the dolphin family. I'm trying to like build my least favourite classroom.

389 The desk.

390 I: So who's standing behind that, is that a desk?

391 G4: Yeah. That is umm, that is the teacher.

392 I: That's the teacher with the witches hat?

393 G4: Yeah

394 I: Is that a particular teacher.

395 G4: No. I like all teachers.

396 I: So what sort of teacher would be teaching in your worst classroom. What sort

397 of teacher would you not like?

398 G4: Erm, a really umm a really umm, one, it's kind of going to be design tech. I'm

399 terrible at it. I'm actually the slowest one at doing design, I'm actually the

400 slowest one in making something, in the entire class.

401 I: What is it about design tech that you don't like.

402 G4: The think I don't like about design tech the most is is like erm, I'm the slowest

403 at doing everything. I'm the slowest. I can never ever, I can never get one

404 thing right.

405 I: You can never get one thing right? How does it make you feel if you can't get

406 things right?

407 G4: I really don't like it.

408 I: You don't like it. And when you can't get things right, what do you do?

409 G4: I have a little frustration.

410 I: Do you ask anyone for help?

411 G4: I do, just they always say, I'm sorry Isabelle, I can't help you. You have to do

412 it on your own.

413 I: They don't help you.

414 G4: Yep, they don't they do not help they don't help me at all.

415 I: They don't help you in your design tech lesson?

416 G4: Including maths.

417 I: And maths.

- 418 G4: Even when I'm really (.) like in a test, I wish there was not a rule that you
 419 weren't allowed to ask for help. I wish I could ask for help.
- 420 I: When you do tests you can't ask for help.
- 421 G4: Yes that's the rule.
- 422 I: That's true.
- 423 G4: You're not allowed to stand up, talk or and you can't ask for any help, no help
 424 whatsoever. So if I was super stuck on one thing, and I needed help, I couldn't.
 425 I couldn't ask. 'Cause that would be a one way ticket to, a one way ticket to a
 426 school detention.
- 427 I: So you'd get a detention if you did ask.
- 428 G4: I'm scared that I might.
- 429 I: You're scared of getting a detention. What is it about detention that scares
 430 you?
- 431 G4: I don't know what it is about them that scares me. I don't know. Just
 432 something about detentions just make me go arghh. But I don't know what.
 433 Because like I'm the good student. I've got top top top marks in chemistry two
 434 times in a row.
- 435 I: Well done.
- 436 G4: Thank you. And if something bad if something bad happened I wouldn't want
 437 anyone else to find out because if if one person found out, they would tell their
 438 friends about it and they would tell their friends about it, and then then
 439 everyone they know will know that, will know, and I would just get so
 440 embarrassed. I wouldn't even want to leave home.
- 441 I: You'd get embarrassed by it?
- 442 G4: And scared.
- 443 I: And scared?
- 444 G4: I don't want, I don't want (.) And also, I'm the good kid. I have no behaviour
 445 points, I've had no detentions, not behaviour points, well I have had conduct
 446 points. So no behaviour, no detentions and no kit marks.
- 447 I: What are kit marks?
- 448 G4: If you don't bring your PE kit. I don't have any of those and no late marks.
 449 Well one because my teacher kept me back.
- 450 I: Why did they keep you back?
- 451 G4: Because the class was not listening.
- 452 I: Oh, did they keep the whole class back?
- 453 G4: Yep. And only a couple made it on the bell.
- 454 I: And how did that make you feel?
- 455 G4: Really like, dang it.
- 456 I: What are you putting in there?
- 457 G4: The tools I found.
- 458 I: What's that?
- 459 G4: I think it's like a drawer or something.
- 460 I: So the tools are in the drawers?
- 461 G4: Yeah.
- 462 I: Yeah, okay. So why have you got skeletons in your design tech class?
- 463 G4: I think I think because skeletons represent you know, urgh.
- 464 I: What's urgh?
- 465 G4: I think it's hate.
- 466 I: Hate? Okay so they show me that you hate this?
- 467 G4: Yeah.

Interview Details

Research Title: Understanding social anxiety in adolescent girls with ASD

Interview date, time, location:

Interviewer: LP ("I")

Interviewee: Parent 1 ("P1")

Interview Transcript

- 212 I: Okay, so sometimes children and young people feel anxious in social situations.
 213 What types of situations makes Amber feel socially anxious.
- 214 P1: Erm, big groups, noise, umm she finds it difficult when there are lots of
 215 conversations going on and, and that can that can even be like erm, I've I've got
 216 four kids my sister's got three kids and if we go out together for dinner, erm,
 217 and you know grandparents and that kind of stuff, that's, she will be very quiet
 218 and will generally have to take her book with her because she just says that it's
 219 just kids talking and adults talking, adults maybe having two different
 220 conversations, there's too much for her to cope with all of that so she does find
 221 that erm, erm, hard I think. Erm, I think she finds it difficult to go in situations
 222 where there are other kids at a similar age, erm, and adults. She does guides,
 223 and she likes guides, but I think if it's kind of a mixture of kids and adults
 224 where there's potentially a bit more pressure she finds that difficult, and she my
 225 brother got married earlier in the year and that was a very big wedding and she
 226 was nervous about that, she was a bridesmaid as well, erm but she we did quite
 227 a lot of preparation with her here as well as at home and, she was nervous but
 228 she coped really well with it, erm, but she had to stay for a little while, it was in
 229 a hotel, a small country hotel, so she would stay downstairs and then she would
 230 go upstairs and write for ten minutes and then she'd come back down so she
 231 would dip in and out and that was her her safety thing to know that if it's too
 232 much I can walk away and have a break and come back. So we find coping
 233 strategies for her to deal with it so she doesn't tend to avoid any, particular
 234 situations but with situations like that, with lots of people, lots of conversations,
 235 movement and noise like that, it's difficult and you know
- 236 I: So it's very much about coping strategies to manage the situation rather than
 237 just total avoidance of it.
- 238 P1: Yeah.
- 239 I: Erm, so you said about putting in a lot of work sort of in advance of the the
 240 wedding so that actually she was prepared for it. Is that something that you
 241 would say is a normal thing for you to do to put in some work to prepare her?
- 242 P1: Yeah. Yeah.
- 243 I: Okay. What about in school? What sort of situations in school would make her
 244 more socially anxious?
- 245 P1: Erm, anything outside of the centre I think. Erm, I think she feels safe in here
 246 and I think she feels like everybody is autistic or I'm sure there are some kids
 247 without a diagnosis but they generally they've got some difficulty the same as
 248 she has so it's safe here, but I think when she goes into the mainstream, it's
 249 harder. She she doesn't really have any friends outside of the centre.
- 250 I: So her friends are over here.
- 251 P1: Yeah. I mean she's got a few girls that she mentions in class that she might sit
 252 with and stuff but they don't socialize outside of the centre. She's allowed to
 253 ask them to come into the centre if she wants want to but to my knowledge
 254 she's never done that.

- 255 I: So do you think she's keeping it quite separate.
- 256 P1: Yeah, but I think she's really anxious as well that, 'cause when they're here I
- 257 think they all just get on with each other but they're all playing on their phones,
- 258 and they'll have a few conversations or they'll watch each other, but then but
- 259 it's safe and it's okay whereas I think she feels that if she invites someone in,
- 260 she will need to entertain them, in some way she'll have to have a conversation
- 261 and that for her is a really daunting prospect. Erm, if she's got a role then she's
- 262 fine so I know that she has helped, like she if they've had kids come to look
- 263 around she will show them round the centre and talk to them and spend time
- 264 with them and she's fine with that 'cause that's a role and that's a responsibility
- 265 and she takes that, she likes that. But if it's just a equal let's have a chat that's
- 266 too hard, it's it's a difficult thing.
- 267 I: Okay, so does she always spend her breaktime over here?
- 268 P1: Yeah.
- 269 I: Erm, so if she was to go elsewhere how would she feel erm if she was going out
- 270 to play?
- 271 P1: I don't know if she'd know what to do. I think she used to when she first
- 272 started, go for a walk, with another girl, but that was 'cause she'd come from a
- 273 mainstream primary school and she was used to being in the mainstream, and
- 274 people there would make an effort with her but obviously the kids here don't,
- 275 no one comes, this is not her school is not a feeder school for this, she's a bit
- 276 out of catchment here so she didn't know anybody and nobody was
- 277 understanding or making any concessions. So, she kind of went for a walk but
- 278 then never made any friends I think so I think now she's just here so I don't
- 279 know how she would manage even. I don't think she would know what to do.
- 280 I: So it sounds like again another kind of way of coping with breaktime is to come
- 281 here where she feels safe so she's around people that would understand because
- 282 they've probably got a similar need.
- 283 P1: Yeah, and she knows what's going on, she knows which room to go in, she
- 284 knows where she can sit, what she can do. Whereas I think if she was out in the
- 285 mainstream it's like well I don't actually know where to go. This is there's just
- 286 people and I don't have anybody and err, that's my perspective anyway. I think
- 287 you'd find it hard to, she eats her lunch in here as well, she doesn't eat food in
- 288 the canteen and I think that would be very difficult for her, to find a place to sit
- 289 and then the noise and conversations going on.
- 290 I: Yeah. It sounds like it's very much about noise and the big groups that that
- 291 what makes her feel anxious.
- 292 P1: Yeah
- 293 I: What do you think it is about that particular thing, what is it about the large
- 294 groups and the noise that makes her feel anxious?
- 295 P1: She is quite to me quite recently in that she can't cope with, she can't follow
- 296 what's happening if there's more than one conversation so I think she just hears
- 297 all of the conversations at the same time coming at her and she can't distinguish
- 298 that that's that person speaking and that's that person speaking and they're
- 299 speaking about this and they're speaking about that. It's just for her, it sounds
- 300 like it's just a wall of noise coming at her.
- 301 I: Okay
- 302 P1: And she doesn't really know what to listen to and (.)
- 303 I: So she can't kind of tune into one particular thing that's happening because it's
- 304 all it all just kind of blurs into one for her.

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305 P1: Yeah. Exactly.

306 I: How does it make her feel when that happens?

307 P1: I think she's learnt to switch off from it.

308 I: Okay

309 P1: And so it doesn't, it doesn't necessarily seem to bother her but I often look at

310 her and think she looks quite sad.

311 I: Oh, okay.

312 P1: Erm, and I think I suppose she finds that adults talk quite quickly when they're

313 talking to each other and I guess teenagers do as well and she finds sometimes

314 that the conversation's just moving on too quickly, she might be here sort of

315 talking about that and then suddenly someone is like oh yeah and what about

316 this sort of thing, she can't make that jump as fast as everybody else can so

317 she's still here and everyone else is over there so she just gets lost erm.

318 I: Yeah.

319 P1: Yeah, that's my understanding 'cause we did have a conversation about this

320 'cause I know that she's very close to my family and then we will go out and

321 she will shutdown and I was just really interested to think, if she's having a one

322 to one, sometimes it's really difficult and sometimes she doesn't want to talk

323 erm but other times she will have a nice conversation, but she never does with

324 her it's just her explanation of what it's like for her.

325 I: It's quite interesting to hear how she would then yeah perceive that.

326 P1: Hmm.

327 I: And the fact that sometimes she could have that one to one conversation but not

328 always

329 P1: Yeah

330 I: And sometimes she wouldn't be able to cope with that and she would just need

331 to switch off from it, erm, but other times she can have a conversation with you,

332 or somebody

333 P1: And you never know what mood it's necessarily going to be. Yeah, no, I mean

334 like it it's really obvious sometimes she, you will say how's your day. Fine.

335 Another day, oh how was your day. Oh it was really good, or this happened and

336 that happened and then, you know, it's very short. She can't cope with doing

337 long conversations. When I say conversation I mean something very different to

338 what I have with my other children but it's conversations with Amber. And she

339 doesn't do, she doesn't, I was going to say she doesn't ask about how was your

340 day (laughs), but actually she sent me a text the other day and she stopped

341 texting for a while but she just text me out of the blue and she said hello mum,

342 how was your day. And then she wanted to talk about my day and what I'd had

343 for lunch you know, what I was working on and all this kind of stuff. It's there,

344 but it's not a natural thing, for her.

345 I: So maybe that's a skill she's still kind of learning and developing but actually

346 you're starting to see some signs of it, erm so that's a good thing.

347 P1: And she does learn by rote I suppose, she builds, so she she will have a general

348 conversation. It's kind of hard and its dependent on other people asking her

349 questions that she interested in answering.

350 I: Okay, so very much scaffolded by the other person, the conversation rather than

351 it coming from her.

Interview Details

Research Title: Understanding the experience of social anxiety in adolescent girls with ASD

Interview date, time, location: 13/03/17, 10.00, School meeting room

Interviewer: LP ("I")

Interviewee: Teacher 3 ("T3")

Interview Transcript

- 209 T3: I think because she knows she's different. And I think she's always known it
 210 and as she gets older and her understanding increases and develops she just
 211 becomes more and more aware of how different she is, and that she's never
 212 going to be like her friends.
- 213 I: Okay.
- 214 T3: And I think it's that that knowledge.
- 215 I: Yeah, so having the knowledge that actually she is different then would
 216 increase the anxiety in those situations with her peers.
- 217 T3: Uh hmm.
- 218 I: Okay. So, we've already touched on this a little bit cause you mentioned early
 219 on, erm because she is obviously quite new to the school, but how does she feel
 220 when she meets new people?
- 221 T3: Erm. I think it varies. If she knows why she's meeting them and what the point
 222 is of the meeting then she can (.) manage her anxiety. In that situation for a
 223 limited time like when she met me, she knew it was about joining the school
 224 and it was about talking about what she'll get here, so that way, it was a very
 225 structured meeting so she knew what to expect so that lessened her anxiety.
 226 Whereas if she was to just be introduced to a supply teacher, without any
 227 rhyme or reason, that would make her more anxious, 'cause she would be
 228 worried about them knowing that she's different, them knowing that she needs
 229 things in, you know, larger font or coloured overlays and things like that. And
 230 she would be anxious 'cause she won't go and tell them these things. She
 231 doesn't have the confidence to say oh but I can't read the board I need to do
 232 this, erm, which would then in turn, make her more anxious. So I think it just
 233 depends on who and where and why really, and also in lunch club, 'cause it's
 234 very mediated with adult supervision, that's easier for her as well to talk to her
 235 peers. Erm, and that lessens her anxiety. Whereas take that same scenario and
 236 put her in the in the lunch hall, it's going to be a completely different
 237 experience for her.
- 238 I: Okay. So you mentioned the lunch hall, does she avoid places where there are
 239 people that she doesn't know?
- 240 T3: I think she avoids places where there's lots of people and lots of noise at the
 241 same time. Erm. I don't necessarily think it's because she doesn't know people.
 242 I think it's just she she finds the amount of people and the levels of noise too
 243 much.
- 244 I: So how does she feel about coming to school?
- 245 T3: It varies. I I think, um, a lot of the times that she has struggled and mum has
 246 struggled to get her in, it has been linked to friendships and anxiety around the
 247 friendships of, you know, um, people meaning well and saying things to her
 248 but her taking it completely personal and not being able to move past that.
 249 Erm, but mostly she she enjoys coming to school and she's she's mostly
 250 smiling and mostly, you know, enjoys it, but there has been times erm times

251 when mum has struggled I know, but it has been always linked to the
 252 friendships.

253 I: Can you give me an example of the types of issues with her friendships then
 254 that maybe she's found difficult and that have made her not want to come in?

255 T3: I think it's that thing. She, believes that if you have a friend you have one
 256 friend and that's your best friend. So when she's made friends with one person
 257 she thinks that's it, you know, they're now best friends so they're going to be
 258 there for each other. But then when that person starts making friends or has
 259 other friendships outside their friendship, she finds it hard to cope with. She
 260 doesn't understand it, and it makes her feel that she's then losing her friend,
 261 'cause her friend is now friends with everyone else.

262 I: Yeah.

263 T3: So that's made it made it hard. And also, um, the the things I've mentioned
 264 before where they say things to her, you know, you can't have that on your
 265 laptop, that looks childish, things like that she wants to have on her laptop
 266 'cause that's who she is but now she's being told no, if you want to be accepted
 267 you can't be. Which in turn to her means, if you if you want to be yourself
 268 you're never going to be accepted. So I think that makes it harder for her.

269 I: It sounds like there's probably a lot of fear then around not being accepted by
 270 her peers and actually what happens to her if she's not. Do you think any of
 271 that is linked to the fact that she is quite new to the school or do you think she
 272 would be like that anyway?

273 T3: I think she would be like that anyway.

274 I: Okay. So, when she's in school how well does she cope things like the
 275 transitions between lessons, or at the beginning of the day, the end of the day?
 276 Things like that.

277 T3: As far as I know she copes really well. We've never had problems with her
 278 being late to lessons or not on time or missing things at all. So I think, she is
 279 coping well with that. We did, before she came, we did prepare her, we gave
 280 her, you know, the times of the day and the lessons, and the layout of the
 281 school and everything so she knew where to go and when to go and when the
 282 bells would be going and things like that. So I think that helped her a lot as
 283 well.

284 I: So you've mentioned her friendships. Does she have good friendships with any
 285 of her peers?

286 T3: No

287 I: No. Okay. Has she had any friendships that she's started to develop since she
 288 started here?

289 T3: There's been the one that's been on and off but yeah, I think, it's more off than
 290 on.

291 I: So who does she spend her time with then when she's in school?

292 T3: I think she's mostly with Millie. Erm, but I yeah, I often see her wandering
 293 around. I don't know if she goes to the library or (.)

294 I: So if she was with some of her peers what sort of things would she like to be
 295 doing with them?

296 T3: I think they just go around school, have a walkabout, talk about things. Erm. I
 297 know when I've been with her in lunch club and there's some of her peers, not
 298 necessarily friends, it's it's kind of talking about what we're talking about on
 299 the table so if we talk about dogs, for instance, she'll mention she'll have a
 300 dog. She has a dog and its name is Sammy and she'll show everyone pictures.
 301 So that helps, but I don't think the conversation the girls outside of that has

- 302 with her she necessarily resonates with. You know, I think they talk about hair
 303 and makeup and boys and those aren't things that. So Georgia will be there,
 304 she'll listen, but I don't she'll participate.
- 305 I: Okay, so you mentioned some of the things that her peers would be talking
 306 about, so the hair and the makeup and things. What do you think Georgia finds
 307 difficult about those sorts of conversations?
- 308 T3: I think the fact that it's not something she's interested in. I think if it was a
 309 conversation about something she likes, like dance, that would be in her
 310 comfort zone and she'll be, you know, excellent at talking about that, but when
 311 it's something about things that she has no interest in or doesn't understand,
 312 she'll just sit and listen and she won't participate.
- 313 I: So the dance and things are topics that she probably could engage in that
 314 conversation but actually the other things she's not quite so interested in so she
 315 finds that more difficult. What about her relationships with adults? What are
 316 her relationships like with staff members?
- 317 T3: Erm. I think she has good relationships with a couple of staff. She, of course
 318 she also likes art, I forgot to mention that. She has a good relationship with her
 319 tutor cause that's the art teacher so 'cause she associates the art teacher with
 320 her tutor and being the art link, that's alright so she likes her. And she gets on
 321 well with her and she wouldn't doesn't mind going to sit in her room over
 322 lunch or breaks. Erm, but other teachers I don't think she quite has that
 323 relationship with. Erm. She's not disrespectful or defiant or any problem in
 324 lesson but she doesn't have a relationship with them.
- 325 I: So what about support staff?
- 326 T3: Erm, again it varies. The ones she knows, is better 'cause she will talk to them
 327 and she'll tell them things from her own accord without them having to prompt
 328 her. Erm, but the ones she doesn't know, she's very reserved. You know, if she
 329 if she was to come in to the room looking for something and it was a member
 330 of staff she doesn't know, she wouldn't have the confidence to say to them I'm
 331 looking for this or this or this. She'll just say don't worry and she'll walk out
 332 so, yeah.
- 333 I: So, if she's in a lesson will she ask for help from people?
- 334 T3: I think again that depends on on the person. Like I teach her for science and I
 335 make a point to go around and check she understands 'cause I know she won't
 336 necessarily always ask me. But if I do go by in passing and she'll see me, she
 337 sees me, she will ask me, for help, but I think that's very much to do with the
 338 fact that she knows me and she's got that relationship with me. I don't think
 339 she does that in other lessons.
- 340 I: What do you think is stopping her from asking for help in those other lessons?
- 341 T3: I think it is the self-confidence. Having the self-confidence to ask what she
 342 wants to ask and also the anxiety about, you know, what if it's a stupid
 343 question and the teacher tells me it's a stupid question. So I think it's a
 344 combination of those two things really.
- 345 I: Do you think the fear of maybe asking staff members for help, and because she
 346 is worried about what she's going to say and whether it's going to be a stupid
 347 question, do you think there are any thoughts about her peers as well at that
 348 point?
- 349 T3: I think so, yes, because she doesn't want to be seen as asking for help 'cause
 350 she doesn't get it and she's being stupid. You know, so I think yes it is very
 351 much about not wanting to lose face in front of her friends, as well yeah.

Appendix O Data Analysis Process

Table 6 *Table of Example Codes for Georgia's Mother (Triad 3)*

Example Codes Triad 3 Parent (with duplicates removed)		
<ul style="list-style-type: none"> • Diagnosis perceived not 'real' by others • Starting to school refuse/avoidance • Appears happy/hides true self • Motivated to learn • Dislikes being with others on her own • Sense of safety in known situations • Anxiety fear as a recent development • Parent being blamed • Increased anxiety with age • Performance anxiety - stage • Fixed mindset (I can't do this) • Copes/shuts down • Verbally able but can't get onto paper • Uncomfortable with unknown people • Coping- close proximity to mum • Poor social comm skills – reciprocity • Avoidance of phones • Unable to make small talk • Poor understanding social expectations • Comfortable talking about interests • Little experience of social situations • Lack of friendships • Wants friends 	<ul style="list-style-type: none"> • Friends nasty to her • Poor understanding of friendship • Immature for her age • Wanting to leave situations she feels uncomfortable in • Feels angry if not in control • Coping/hiding under table • Coping /fiddle toys • Unpredictable situations cause anx • Perfectionist • Fear of being laughed at for saying wrong thing • Difficult prior exp. with peers • Social anx. as hidden • Fear of being perceived as naughty • Importance of staff knowing & understanding her • School developing social skills - support • Seeking reassurance from mum • Sign of anxiety – immature voice • Sensitive to noise • People as overwhelming • Impact of anxiety on friendship • Fear of drawing attention to herself • Not asking for help 	<ul style="list-style-type: none"> • Pretending to be someone else (hiding true self) • Signs of anxiety – hot, fidgety, drawing on hand • Not wanting to be seen as different • Prefers to be on own to calm down • Fear of looking stupid • Fear of being different to peers • Desperate to fit in • Home as release – safe space • Parent good understandings her • Different at school to home • Mental inflexibility (overgeneralise hand up) • Difficulty following conversation • Worries about how people perceive her • Likes responsibility (control) • Dislike of meeting new people • Parents encourage her to meet new people • Periphery of social group • Easier to be in own world w/o friends • Fear for her future

Examples of initial noting for Parent 4 and Parent 2 (initial comments are in right-hand column and emergent themes / codes on left)

overwhelmed by people.	261	P4:	Um. She will, ah well if she's <u>she'll say I'm all peopled out</u> . I, I need, I need	overwhelmed by people. difficulty articulating uses Isabelle's words. knows strategies to help her ↳ time ↳ safe space.
coping strategies (safe space)	262		time, and, um, she'll either go up to her room and she's got a screen on the	
	263		bottom bunk so she hides in her little underwater kingdom, which is	
	264	I:	Okay.	
	265	P4:	a seascape and full of um soft toys and whales and dolphins and things. And	
	266		it's her world, that, I I just don't need to be disturbed. <u>And in social situations</u>	Has a safe space - own world. Withdraws from social situations choice? Isabelle unaware of isolating herself. Hides.
withdraws from soc. situations (isolation)	267		<u>she'll remove herself and, yeah, she'll be having lots of fun. Ah I'm having the</u>	
	268		greatest time. <u>It's like your actually in the next room to where everybody else</u>	
	269		is. Oh no, <u>but it's great fun. But you're not with the party. Or she'll be in the</u>	
	270		kitchen, <u>hiding</u> .	
	271	I:	Okay.	
Dislikes noise	272	P4:	And she'll go somewhere else if it's too noisy, too bright, too (.) too loud.	Dislike of noise. sensory sensitivity.
	273	I:	So very much having that escape and having somewhere she can go, preferably	
	274		somewhere that's her nice calm safe place to go to but, if not, somewhere else.	
Isabelle in control.	275	P4:	Or she'll say <u>I need to go now</u> .	Isabelle taking control of difficult situations.

44 P2: Yeah, Ellie, however, only did it because she thought that's what she had to do.

45 I: Yeah.

46 P2: Erm, and we had a lot of this and then there was basically we got to the end of

47 year 4 and Ellie and Katie's relationship broke down. I, I personally feel that

48 Katie had got completely fed up of this child who would literally yes do

49 everything she said but never came up with anything herself, and if Katie

50 wanted to go off and do something else that didn't involve Ellie, Ellie couldn't

51 cope and then was this emotional tie on Katie, and at that point the relationship

52 broke down and so did Ellie, because Ellie had, had this complete support

53 mechanism and has now had turned into a child that couldn't cope and we

54 went through horrendous times, horrendous self-harming, huge anxiety issues

55 to the point of becoming a school refuser.

56 I: Okay

57 P2: So, erm, she refused, we had a period of about three months where she refused

58 to go to school we we we did get her in but not in her year group. So she went

59 back a year. That was only because she had a really good relationship with the

60 class teacher. If that class teacher had been up a year she would have gone up,

Poor
social
understanding
of friendship

Negative
experience
of friendship
difficulties

Loss of
friendship

Loss of
peer support

Inability
to cope

School
refusing

Importance
of relationship
with teacher

Ellie lacked the social
understanding - thought she
had to do what her friend did.

Friendship broke down at
end of Yr 4.

Bored?
Mum not completely certain why
but thinks it was because
Ellie copied her friend but
couldn't initiate. Also couldn't
get away.

Ellie was a burden on Katie.

Lack of reciprocity
Too intense - Katie couldn't
get away.

Broke down - major event.
Irreparable -

we shared responsibility

Loss of support from peer.
Inability to cope.

Severe issues + became school
refuser.

Refused to go to school.
She went into the year below
due to her relationship with
the class teacher.

Example of collated codes/emergent themes

Ellie's Mother - P2

Importance of staff relationship

- Teacher needs to be in control of class
- Good relationship with unit staff
- Importance of relationship with teacher
- Teacher as secure attachment figure
- Importance of key adult/ trusting relationship
- Motivated by good relationship with teacher
- Teachers as powerful – take fears away
- Importance of teacher – make an effort with Ellie
- Good/trusting relationship with adults in unit
- Responds well to good relationship with teacher – makes unknown known

Planning and preparation

- Being well prepared – calm activities
- School support strategies – meet and greet
- School adapts to Ellie's needs
- Guarantees reduce uncertainty – knows what to expect
- Need for routine and continuity
- Parents as scaffolding
- Prevention and planning
- Mum is pre-emptive
- Making the unknown known
- Advance planning (school visit)
- Need for planning – can't plan for everything
- Mum planning ahead
- Parents acceptance of need for planning

Appendix P Thematic Maps

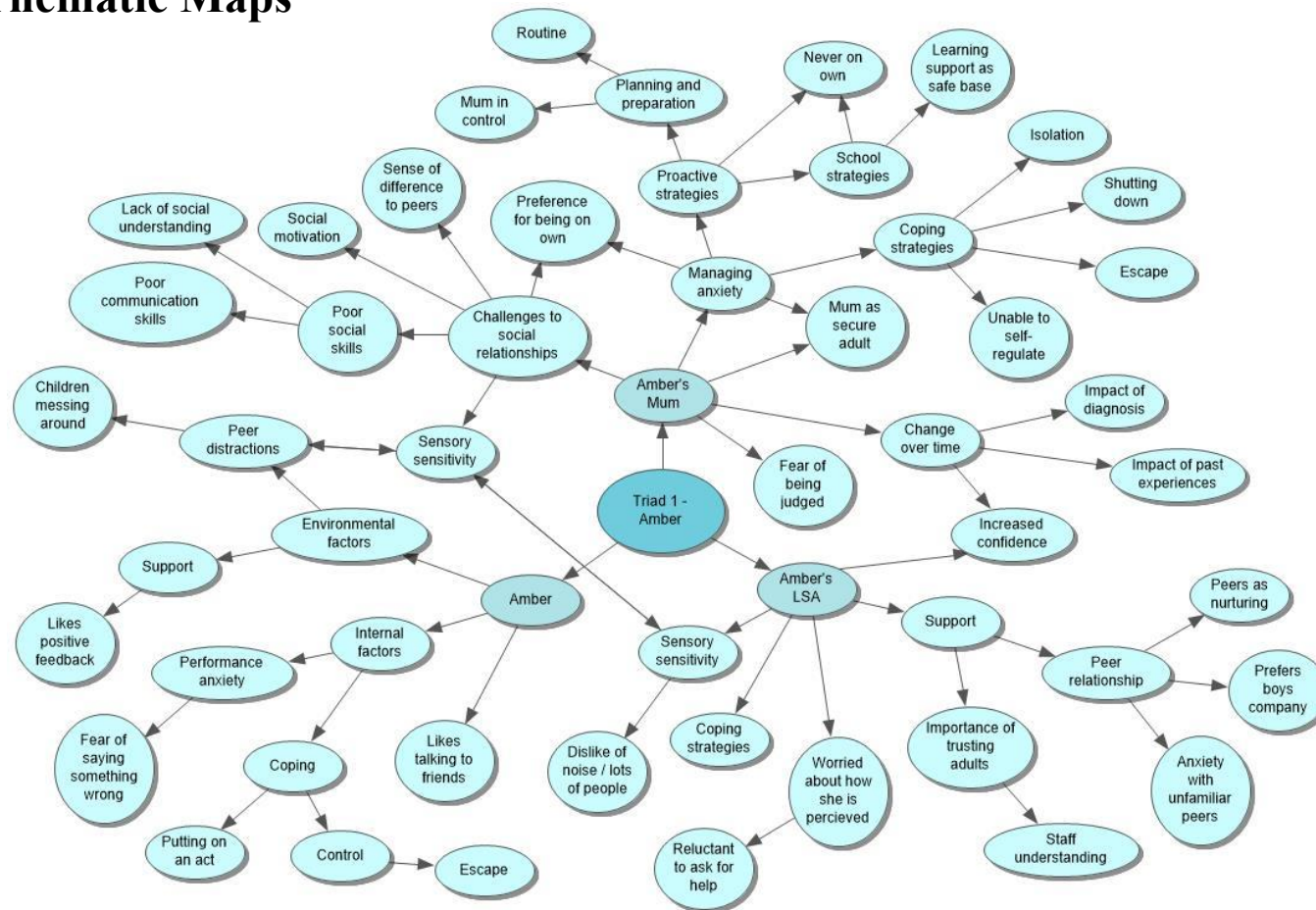


Figure 5. Thematic map for triad 1 - Amber, Amber's mother and LSA

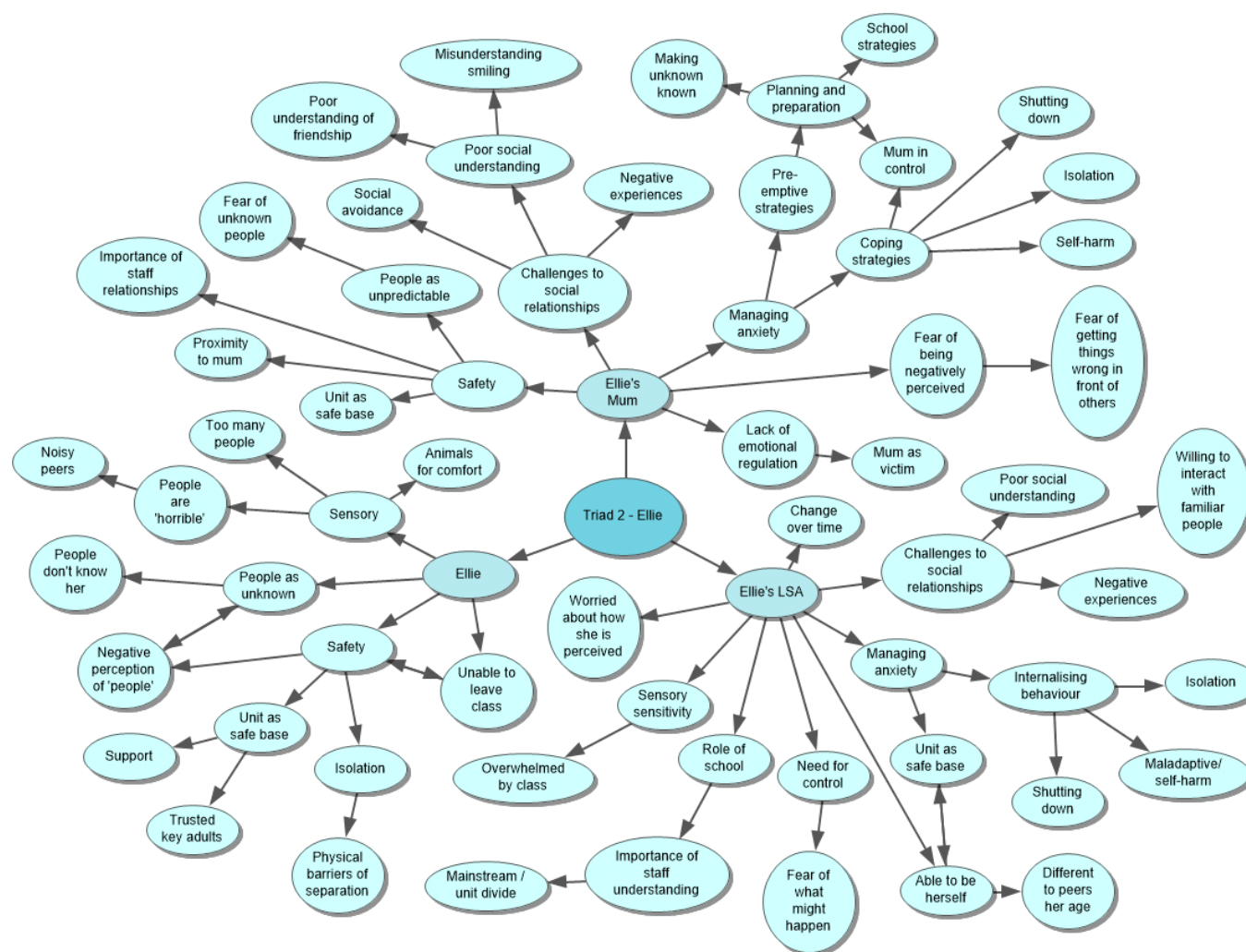


Figure 6. Thematic map for triad 2 - Ellie, Ellie's mother and LSA

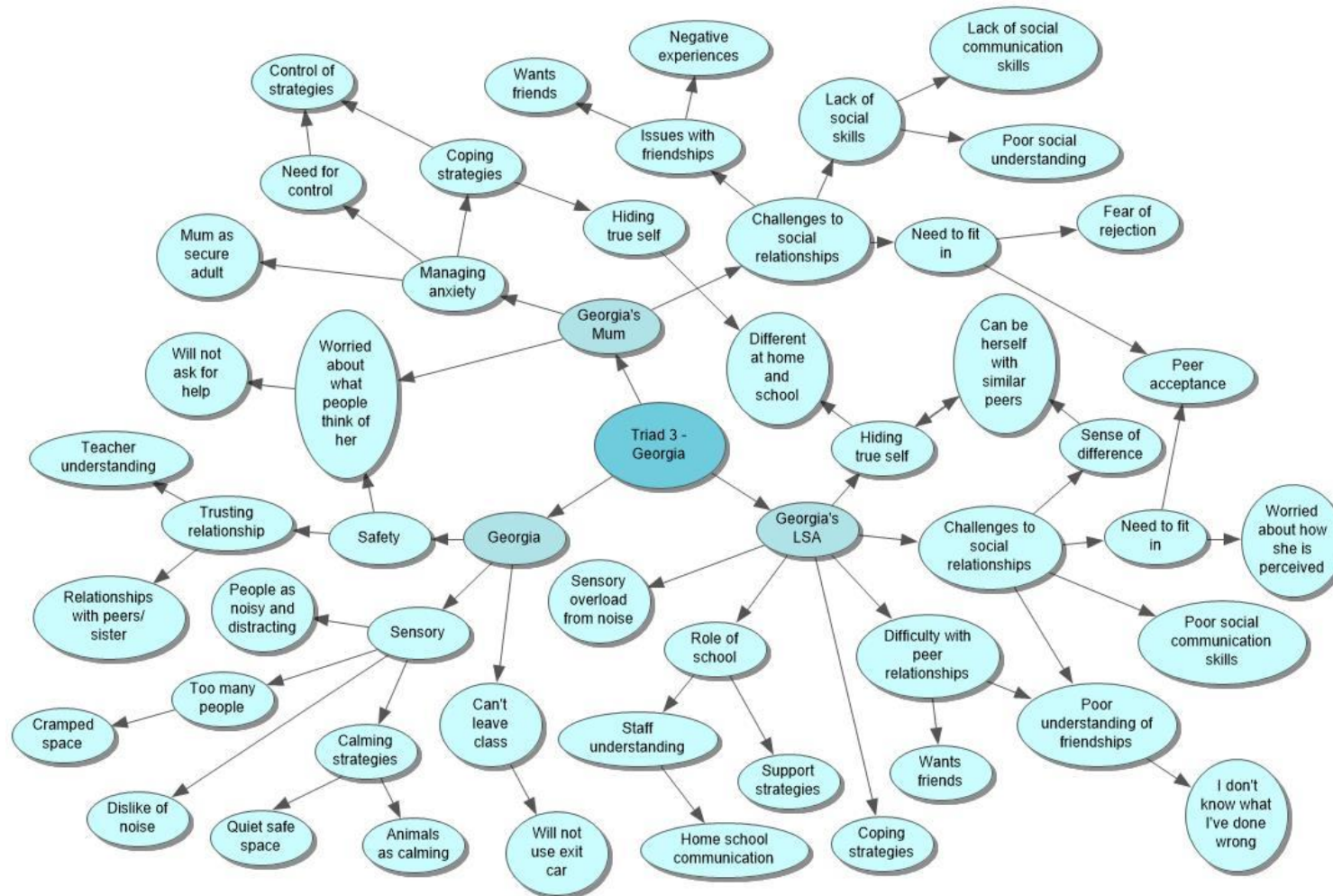


Figure 7. Thematic map for triad 3 - Georgia, Georgia's mother and teacher

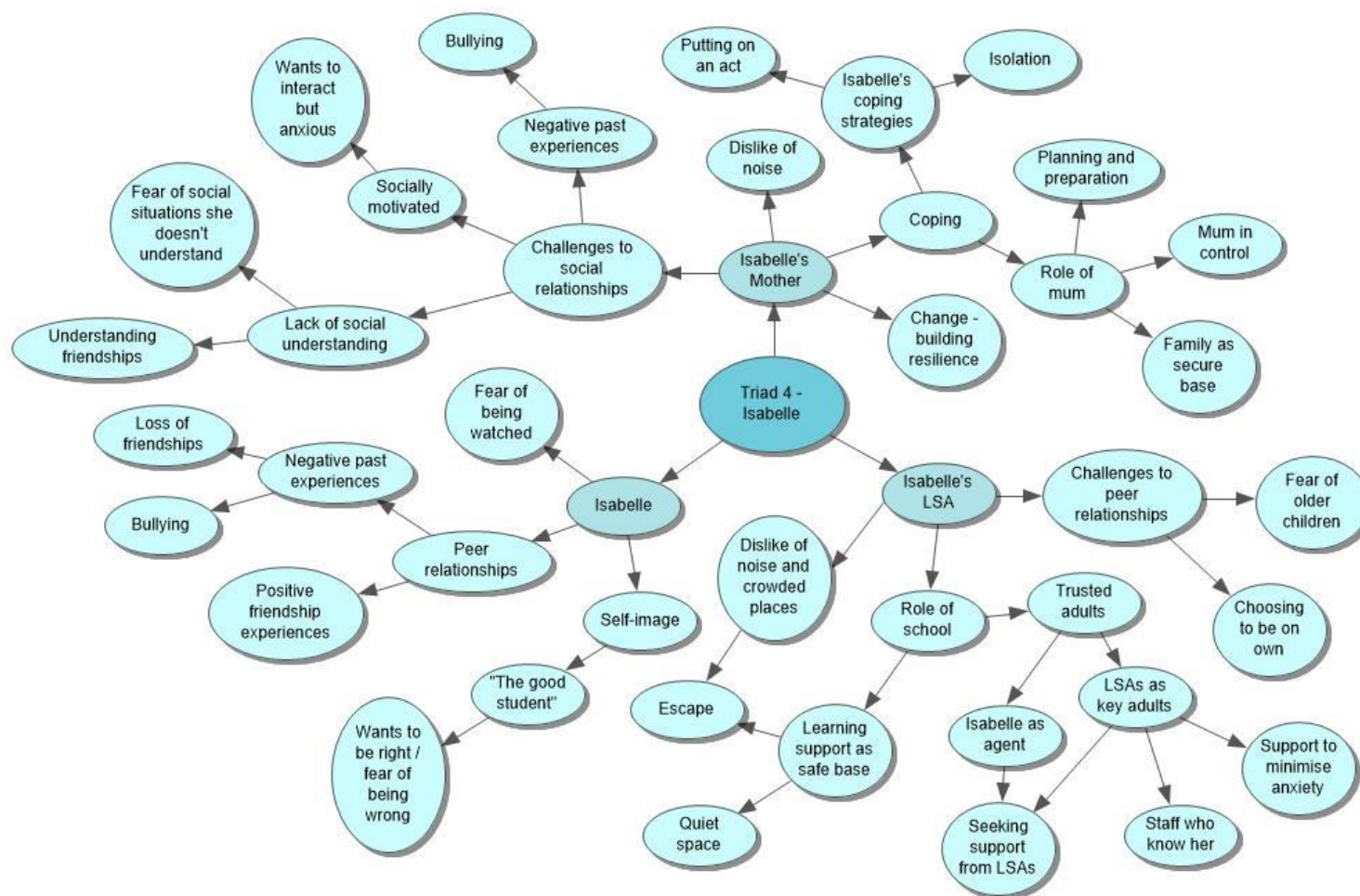


Figure 8. Thematic map for triad 4 - Isabelle, Isabelle's mother and LSA

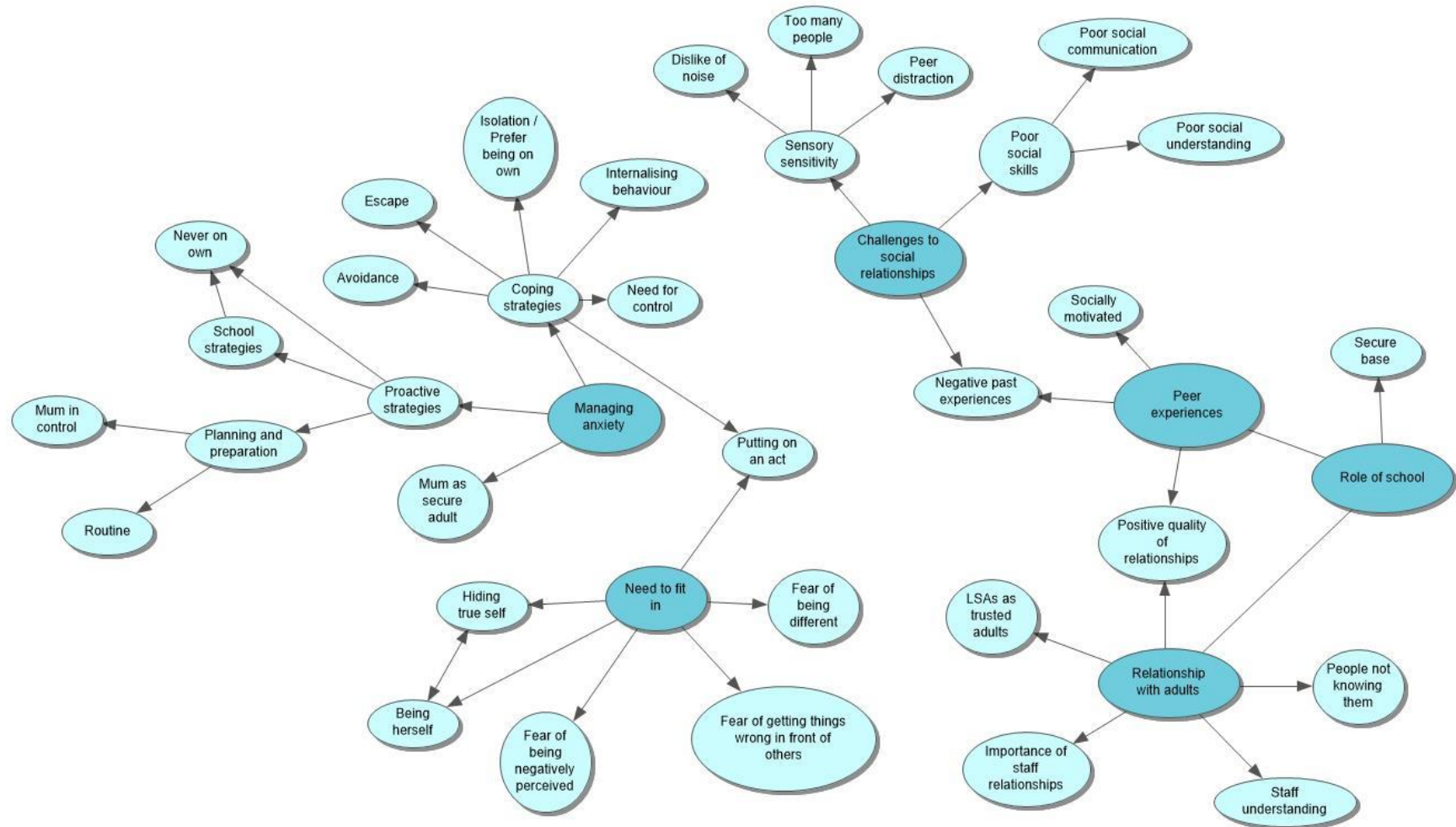


Figure 9. Initial thematic map for the four triads

Appendix Q Final Coding Manual

Table 7 *Final Coding Manual*

Theme	Sub-theme	Description	Examples of quotes	Elaborations/ Exemptions
Barriers to Social Situations	Sensory sensitivity to noise – ‘noise is frightening’	Any statement that refers to the girls’ sensory sensitivity to noise, including their dislike or fear of loud noises and/or their preference for quiet. Also includes reference to the source of noise, including people or the classroom environment.	<p>“...I think she was less bothered by noise when she was younger. Definitely she was less bothered by noise when she was younger. Erm, it’s probably only been in the last few years that noise has become more of an issue for her.” (P1, Lines 411-414)</p> <p>I: “...What is it about the people that makes you feel scared? G2: They’re noisy and I don’t like people.”(G2, Lines 487-489)</p> <p>I: “Why is it important for them to be quiet? G3: So that I don’t, like, ‘Cause I don’t like loud noises. I: And what is it about loud noises that you don’t like? G3: Too loud. I: It’s too loud. How does that make you feel, though, if there’s a loud noise? G3: Upset and a bit frightened.” (G3, Lines 419-425)</p>	Also includes changes to sensory sensitivity to noise over time.

APPENDIX Q

	Poor social skills make interactions difficult	Any description about the girls not having the social skills needed for everyday social interactions. This includes both poor social communication skills (e.g. conversation skills like turn-taking or initiating) or poor social understanding (e.g. not understanding social rules).	<p>“She is quite to me quite recently in that she can’t cope with, she can’t follow what’s happening if there’s more than one conversation so I think she just hears all of the conversations at the same time coming at her and she can’t distinguish that that’s that person speaking and that’s that person speaking and they’re speaking about this and they’re speaking about that.” (P1, Lines 295-299)</p> <p>“But down the beach walking the dogs we’ll say hello to, I’ll say hello to everybody and if someone doesn’t say hello back to me, Ellie says well they didn’t like you, did they? I say it’s not that, they obviously didn’t want to say hello today. It’s fine. Mummy’s not hurt by that.” (P2, Lines 998-1001)</p> <p>“She puts her hand up every time she wants to say something, at home. Not that we’ve told her she has to but that’s, you know, can I say something please? Yes Georgia you can say something.” (P3, Lines 368-370)</p>	Includes lack of understanding of friendship. Does not include statements about the impact of poor social skills on the quality of their experiences with peers.
Quality of Relationships	Trusted adults reduce anxiety	Statements regarding the quality of relationships with key adults or staff, including LSAs, or reference to the importance of these relationships for the girls. Also includes statements about	<p>“...she does get on well with all the staff and she knows that we are there to help her and err yeah, I can imagine that if she wasn’t part of here then she might struggle more than what she has done. It’s been good for her I think.” (T1, Lines 402-404)</p> <p>I: “And why is there an LSA in there?” G2: Um, because I like the LSAs. I: And what are they doing? G2: Helping me with the work. I: Okay. And how would you feel if the LSA wasn’t there to help you with</p>	Also includes statements regarding the difference between mainstream staff/teachers and LSAs from Learning Support.

		knowing the staff or staff knowing the child (staff understanding).	<p>your work?</p> <p>G2: Sad.” (G2, Lines 236-242)</p> <p>“...the adults because obviously the adults don’t really leave them. So, you know, the adults are around and you know, I think the relationships with the adults are very close. You know, Ellie talks calls Miss Wilson small one and things like that and, so there’s there’s a fun element to the staff in the unit. Very different from the mainstream.” (P2, Lines 829-833)</p> <p>“We’re very supportive. I think we all know her well enough now to know if she is having a good day or a bad day, we’ll support her.” (T4, Lines 209-210)</p>	
	Negative peer experiences lead to social anxiety	Any reference to the quality of the girls’ relationships with their peers, with a focus on negative peer experiences. These include loss of friendships, peer neglect, rejection and exclusion, and bullying or victimisation.	<p>“I know she said that somebody wasn’t very nice to her in her school and I think that’s stayed with her because somebody had been quite unkind to her.” (T1, Lines 506-508)</p> <p>“You know, she has lots of ‘frienemies’ where they’re friends and enemies and they’re sort of like. She’ll stand on the outskirts of a group of children. But she doesn’t have a particular friend as such.” (P3, Lines 476-479)</p> <p>“And from that point he would, um, shout at her, talk really loudly to her, um, take her pencil case, push on the back of her chair. Um. He chased her out of the classroom away from, she was going to a class, and he chased her out of the block and got her so upset...” (P4, Lines 111-114)</p>	Experiences can be inside or outside of school.

Coping with Social Situations	Avoidance and escape from social situations	Any statement referring to the child's need to avoid social situations or to escape from situations they are already in. Avoidance includes backing out of social situations in advance, choosing to be on own and isolation. Escape refers to being able to leave a social situation, or the feeling of being trapped if unable to leave. Also includes statements about hiding, withdrawal and shutting down.	<p>“...she would stay downstairs and then she would go upstairs and write for ten minutes and then she'd come back down so she would dip in and out and that was her her safety thing to know that if it's too much I can walk away and have a break and come back...” (P1, Lines 229-232)</p> <p>I: “So what's the most important thing in that classroom?” G3: Hmm. The door. I: Why's the door the most important thing? G3: Just walk out. I: Can you walk out? G3: No. I: Can other people walk out? G3: Sometimes. I: Okay, but you can't walk out. G3: I, I can if I show the exit card that I've got. But I don't use it.” (G3, Lines 691-700)</p> <p>“We'd been meeting for 12 weeks and she had to stand up and, she'd had prior warning that this was going to happen, stand up and talk about something, anything she liked to talk about, and she hid under the table.” (P3, Lines 185-190)</p> <p>“She's just changed her consultant...and it was like, no no, you really must speak darling as she's under my arm sort of sticking her heading out. It's like, no we're here for you, as her Doctor says, so would you like to tell me about yourself? No. I wouldn't like to. No I wouldn't.” (P4: Lines 324-328)</p>	Also includes references to the use of a safe base in school to avoid social situations.
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	Proactive strategies to minimise anxiety	This refers to any statement regarding the use of planning and preparation, school based support strategies or steps taken in advance to reduce anxiety about social situations. This includes talking through upcoming social situations, having planned access to comfort objects, planned visits and rehearsal.	<p>“She likes to talk through stuff and before she came here we talked through how it was going to be and she came for four or five erm days where they went through the whole transition thing.” (P1, Lines 570-572)</p> <p>“Last year we went, we went planned. She had her iPad, she had, you know she had a resource bag shall we say full of stuff that she could do, ear defenders, the works.” (P2, Lines 439-351)</p> <p>“Um, as far as teachers what we try, what we do try to do is, when we know she has a change of teacher we ask them to come over here and meet her first.” (T2, Lines 200-202)</p> <p>“Erm, it helps her to know exactly where she sits in the class, who’s she sat next to. It helps her if she knows the person next to her is actually going to work and not make it difficult for her to work ‘cause she can’t put up her hand and say, Sir he’s distracting me. So placement in the class is really vital for her, erm, and then giving her specific things to do also helps her.” (T3, Lines 464-469)</p> <p>“I said but what would be a nice idea I said, when you do see her and you remember her, why don’t you give her a high five or something like that and they went yeah alright then we will. And I’d gone back with the girls to Isabelle and I said look do you remember these two? They were here when you first started. Yes I do, and I said well when they see you they’re going to give you a high five and you’ve got to do it back to them. Okay then (laughs).” (T4, Lines 310-316)</p>	Also includes statements describing the control taken by parents to manage situations in advance.
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Desire to 'Fit In'	Hiding 'true' self	This includes any statement referring to the girl not being themselves or hiding who they are from other people. It also refers to any statement about the girl not wanting to appear different, or stand out, their ability to put on an act, and the level of demand this involves.	<p>G1: "And that, and that on the other side is back at home with mum thinking I, I, err, and that's, that's my pretend smile when I get back home.</p> <p>I: So why is it a pretend smile?</p> <p>G1: Because because Mum asks me hi there, hi Amber, how's your day, something like that, and I'll say my day was good.</p> <p>I: And would you say my day was good even if your day wasn't good?</p> <p>G1: Well, yes." (G1, Lines 516-522)</p> <p>"I think I just think she is she's exhausted when she comes home from school because it takes so much out of her at school to be like everybody else, and not be able to be herself." (P3, Lines 466-468)</p> <p>"...she would often say I can't talk like this in school 'cause they tell me I'm weird. So, I think a lot of her anxiety is about the fact that she doesn't want to be seen as weird or different. So she wants to fit in. She's trying desperately to fit in." (T3, Lines 71-73)</p> <p>"she actually says that um her friends that she hangs out with at lunchtime, um, the two boys, it's really great 'cause I can be myself, but the rest of the time she's constantly acting the part of, the pupil and um, gets along quite fine because she doesn't like the idea of being made fun of, being embarrassed and she wants to fit in like every other child. (P4, Lines 63-67)</p>	This also includes sense of difference to girls their age and ease or preference for boys' company.
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	<p>Fear of being negatively perceived</p>	<p>Any reference to the fear of being judged by other people, getting things wrong in front of other people, or being seen to not understand. Also includes statements about the consequences of being negatively perceived and how this impacts on their ability to fit in with their peers.</p>	<p>“So the fear of getting it wrong in front of other people. If it’s just the teacher it doesn’t matter, they’re not judging me against that person. So there is that element of fearing failure or in some way not being able to get it wrong and how that person might feel against them.” (P2, Lines 952-956)</p> <p>I: “What do you think Connor would be thinking? G3: What is she doing. That’s a silly question... I: And what about Olivia. What would she be thinking? G3: Olivia’s quite nice so she wouldn’t be thinking much. She’d just get on with her work.” (G3, Lines 868-878)</p> <p>“...she doesn’t want to be seen as asking for help ‘cause she doesn’t get it and she’s being stupid. You know, so I think yes it is very much about not wanting to lose face in front of her friends, as well yeah.” (T3, Lines 349-351)</p> <p>“...if one person found out, they would tell their friends about it and they would tell their friends about it, and then then everyone they know will know that, will know, and I would just get so embarrassed.” (G4, Lines 437-440)</p>	
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