

The Experiences of Peer Relationships Amongst Autistic Adolescents: A Systematic Review of the Qualitative Evidence

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Abstract

Background: Peer relationships can be especially difficult for autistic adolescents, given their marked social communication difficulties. The purpose of this systematic review is to synthesize reported qualitative findings on how autistic adolescents experience peer relationships, including the rewards and challenges, from their perspective. The review includes the perspectives of others (e.g. parents, support workers), from included papers where these were reported in addition to the adolescent viewpoint.

Method: PRISMA guidelines and the Joanna Briggs Institute meta-aggregative approach to qualitative synthesis informed this review process. Articles included were published in the last ten years, specific to autistic adolescents between the ages of 10 and 19. Of the 75 articles meeting eligibility for full-text review, ten matched the final inclusion criteria.

Results: Findings relating to four main themes emerged from the qualitative synthesis: understanding friendship, having and wanting friends, challenges of peer relationships and overcoming challenges. Fourteen sub-topics are described in detail, for example, that autistic adolescents do have and want friends, though this is often not easily achieved, leading to feelings of loneliness. Findings also revealed experiences of peer rejection and victimisation, and specific factors that might make building positive peer relationships difficult, such as group settings.

Conclusions: Autistic adolescents face a number of difficulties with understanding social rules and conventions, which seem to make peer relationships difficult. However, due to many autistic adolescents having a desire for friendship, some have developed ways of overcoming these challenges. This review highlights that additional support is needed to support the development of autistic adolescents' social skills and awareness; further research is needed to establish how this could be done most effectively.

Key Words: Autism; Systematic Review; Adolescence; Friendship; Peer relationships

Highlights

- Autistic adolescents understand the concept of friendship and tend to want to have friends.
- Due to difficulties with social communication, forming and maintaining friendships can be challenging, with multiple barriers.
- Feelings of loneliness and social isolation can result from difficulties with making friends and from peer victimisation, which can lead to mental health problems.
- Further work is needed to make social skills support or training available to all autistic adolescents who desire it.

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Introduction

Autism and Adolescence

Autism is a pervasive neurodevelopmental disorder, characterised by difficulties with social communication and interaction, as well as restrictive and repetitive patterns of behaviour, activities or interests (DSM- 5; American Psychological Association, 2013). The estimated prevalence rates for autism spectrum conditions (ASCs) is 0.6% of the general population (Charman, 2002).

Adolescence, which can be defined as the period between the onset of puberty and the achievement of relative self-sufficiency (Blakemore & Mills, 2004), can be especially difficult for individuals on the autism spectrum, as social expectations increase and peer relations become more complex (Adreon & Stella, 2001). McGovern and Sigman (2005) found that the desire for social relations increases markedly in many autistic¹ individuals by adolescence, which can be difficult to manage due to social difficulties experienced throughout the lifespan. For example, adolescence often requires the learning of more complex social rules, such as understanding humour and slang and taking the perspectives of others to understand emotions and situations (Frostad & Pijl, 2007); areas that autistic individuals might find particularly difficult (Chamberlain, Kasari & Rotheram-Fuller, 2007). Furthermore, autistic youth may develop heightened awareness of social isolation and victimisation during this age period (Kuusikko et al., 2008).

Friendship

Friendships among young people provide an important context for social, emotional and cognitive development (Waldrip, Malcomn & Jensen-Campbell, 2008). Helm (2005) defines friendship as a distinctively personal relationship, requiring some degree of intimacy, that involves concern on the part of each friend for the welfare of the other. Friendships can provide young people with the opportunity to practice interpersonal skills, to use a variety of emotional expression, to exchange ideas, and to cooperate, therefore they may be considered a core part of adolescent development (Berndt, 1992). It is also known that peer relationships tend to become increasingly valuable with age for adolescents (Jankowski, Moore, Merchant, Kahn & Pfeifer, 2014).

¹ The term 'autistic' is used instead of first person language (i.e. *a person with autism*), as identity-first language was found by Kenny et al. (2016) to be preferred by the majority of people on the autistic spectrum.

Social interactions, and particularly building and maintaining friendships, can be particularly difficult for autistic people because they find interpreting subtle social cues challenging, particularly non-verbal body language (Koning & Magill-Evans, 2001). They may also have difficulty with automatically considering someone else's perspective, motives, thoughts and feelings (Ruffman, Garnham, & Rideout, 2001; Senju, Southgate, White, & Frith, 2009), although learning explicitly about mental states is possible (Bowler, 1992; Happé, 1995; Scheeren, de Rosnay, Koot, & Begeer, 2013). Cognitively able autistic adolescents report increased concerns about their friendships and an increasing awareness that they are different to others (Carrington, Templeton & Papinczak, 2003b). However, they also report wanting to fit in and have friends (Daniel & Billingsley, 2010).

Bullying and Peer Victimization

Autistic children and adolescents are common targets of bullying during their school-aged years (Cappadocia et al. 2012; Schroeder, Cappadocia, Bebko, Pepler & Weiss, 2014; Van Roekel, Scholte & Didden, 2010), with this group being up to four times more likely to experience bullying than students without disabilities (Sterzing, Shattuck, Narendorf, Wagner & Cooper, 2012). Risk factors that might put autistic individuals at higher risk of being victimized by peers include having limited social skills (Kloosterman, Kelly, Craig, Parker & Javier, 2013; Schroeder et al., 2014), fewer or lower quality peer relationships (Rowley et al., 2012; Wainscot, Naylor, Sutcliffe, Tantam & Williams, 2008), communication difficulties (Nabuzoka, 2003) and difficulty regulating emotions (Schroeder et al., 2014). Additionally, research using a sample of typical adolescents shows individuals with poor social skills and few friends are marginalized and unprotected within the social group and are therefore vulnerable to the abuse of power by peers (Delfabbro et al., 2006); this could also help to explain continued victimisation amongst autistic youth. Finally, it is worth considering that experiences of victimisation may exacerbate social difficulties among autistic adolescents, making it even more difficult to form and maintain friendships (Van Roekel et al., 2010).

Research has shown that autistic individuals are at higher risk of developing psychiatric difficulties, particularly anxiety and depression symptoms (e.g. Tantam, 2000; Ghaziuddin, Ghaziuddin, & Greden, 2002), and this increased vulnerability is particularly prominent during adolescence (e.g. Vickerstaff, Heriot, Wong, Lopes & Dossetor, 2007; Lecavalier, 2006). Strang et al. (2012) conducted a large-scale study looking at autistic children and adolescents and found that 40% of their

sample had borderline or clinical levels of depression and/or anxiety symptoms. Van Roekel et al. (2010) found that frequent victimisation was related to many mental health problems among young autistic people. Autistic youths who experienced weekly victimisation were rated by their parents as having higher levels of anxiety and self-injurious behaviours than those who experienced little or no peer victimisation.

As described, existing literature would suggest that autistic adolescents may have some difficulty negotiating friendships, which could exacerbate their risk towards being victims of bullying. It is therefore important to hear the perspective of these young people and aim to better understand their experiences, in order to provide the appropriate support. Much of the research that has investigated the nature of friendships in autistic adolescents (e.g. Orsmond, Krauss & Seltzer, 2004; Bauminger & Schulman, 2003), and risk and protective factors for peer victimisation (e.g. Van Roekel et al., 2010), has used methodologies (e.g. self-report, closed-ended questionnaires) that have left important gaps in our knowledge about their specific experiences, such as how individuals were affected by these experiences. Qualitative research affords “people who are often studied but seldom heard” (Taylor, Ferguson & Ferguson, 1992, p. 14), such as autistic adolescents, an opportunity to inform the investigations surrounding them. This methodology allows researchers to investigate questions that ask for meaning of phenomena, such as friendship, with the purpose of understanding the human experience within the context of everyday life (Seamon, 2000). Studies utilising this methodology therefore formed the focus of this review.

The current review

Systematic synthesis of relevant qualitative studies of friendship and victimisation experiences of autistic youths can provide a more complete understanding than that derived from individual studies alone. It can assist in the interpretation of single studies; help explain variation or conflicts in single study findings; and help inform the design of new interventions. It may also help to identify gaps in the existing literature and therefore highlight areas for future research.

In this review, we consider the perspectives of autistic adolescents and, in some cases, their parents and teachers, regarding experiences of peer relationships, including experiences of friendships and peer victimisation. By accumulating relevant studies to form a more comprehensive picture of the

topic area, the findings of this review will help to answer the questions, ‘How do autistic adolescents experience peer relationships, including the rewards and challenges?’ The qualitative synthesis will have implications for a range of stakeholders, including non-government organisations, national policy makers, and, importantly, young autistic people, their schools and their families.

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Methods

A meta-aggregative approach was followed, developed by the Joanna Briggs Institute (JBI; Pearson, 2004), to synthesize findings across included studies. This approach models the Cochrane Collaboration process to review and analyse randomized clinical trials, yet remains sensitive to the nature of qualitative research approaches. Specifically, the JBI Qualitative Assessment and Review Instrument (JBI QARI; Joanna Briggs Institute, 2014) was used to assist in the process of qualitative review, which was developed specifically for meta-aggregation. The JBI approach produces directive statements, capturing key messages from the cumulative findings, which can be used to guide practitioners and policy makers.

Inclusion Criteria

Studies that examined the experiences of peer relationships in autistic adolescents were included, with specific reference to experiences of friendships and/or of peer victimisation. Studies were included from any discipline or theoretical tradition that used primarily qualitative methods; research using qualitative and quantitative methods (mixed methods) were included, where qualitative findings were reported. Published studies reported in English were considered; papers published in other languages were not, due to resource limitations. Studies published between the years of 1997-2017 were included, as papers older than twenty years may no longer be relevant to today's youth population. The inclusive age range for participants was 10-19 years old, in line with the recent perspectives that this age range corresponds more closely to adolescent growth and development (Sawyer, Azzopardi, Wickremarathne & Patton, 2018). Participants in the included studies had to have a formal diagnosis of an ASC.

For consistency and quality assurance purposes, only published articles were included in the synthesis, therefore excluding dissertations. Studies where the topic of interest was romantic relationships were also excluded, as this was thought to be a related, but separate, topic. Studies were excluded if they did not prioritise autistic adolescents' perspectives.

Search Strategy and Study Selection

Figure 1 maps out the process by which articles were selected for review. The databases PsychInfo and Scopus were searched, using the keywords: (Abstracts) “(Autis* OR Asperger* OR ASD OR ASC) AND (Asolescen* OR Youth* OR Teen* OR “young people”) AND (Friend* OR belonging OR bully* OR “social isolation” OR Lonel* OR Victimi* OR Relationship* OR Peer*)”. This process was complemented by reviewing citations, searching Google Scholar, checking existing systematic reviews in the topic area of interest, and expert referrals. Additional articles were included as they became available. Initial searches identified 345 citations, across both databases and other search methods. After scanning for duplication, 252 studies were identified for screening. The titles and abstracts of potentially relevant studies were screened to ensure they examined autistic adolescent experiences of peer relationships, excluding 177 papers and retrieving potentially eligible papers (n=75). After scanning these full texts, 63 studies were not considered eligible and 12 were considered potentially eligible, based on our inclusion criteria. A second reviewer independently repeated the search and screening process, and disagreements (n=4 papers) were discussed. Following discussion, two more papers were excluded because they did not include sufficient qualitative data (Humphrey and Symes, 2010), or because the focus did not appear to be specific enough to

adolescent peer relationships (McLaughlin and Rafferty, 2014). The final synthesis therefore included 10 papers.

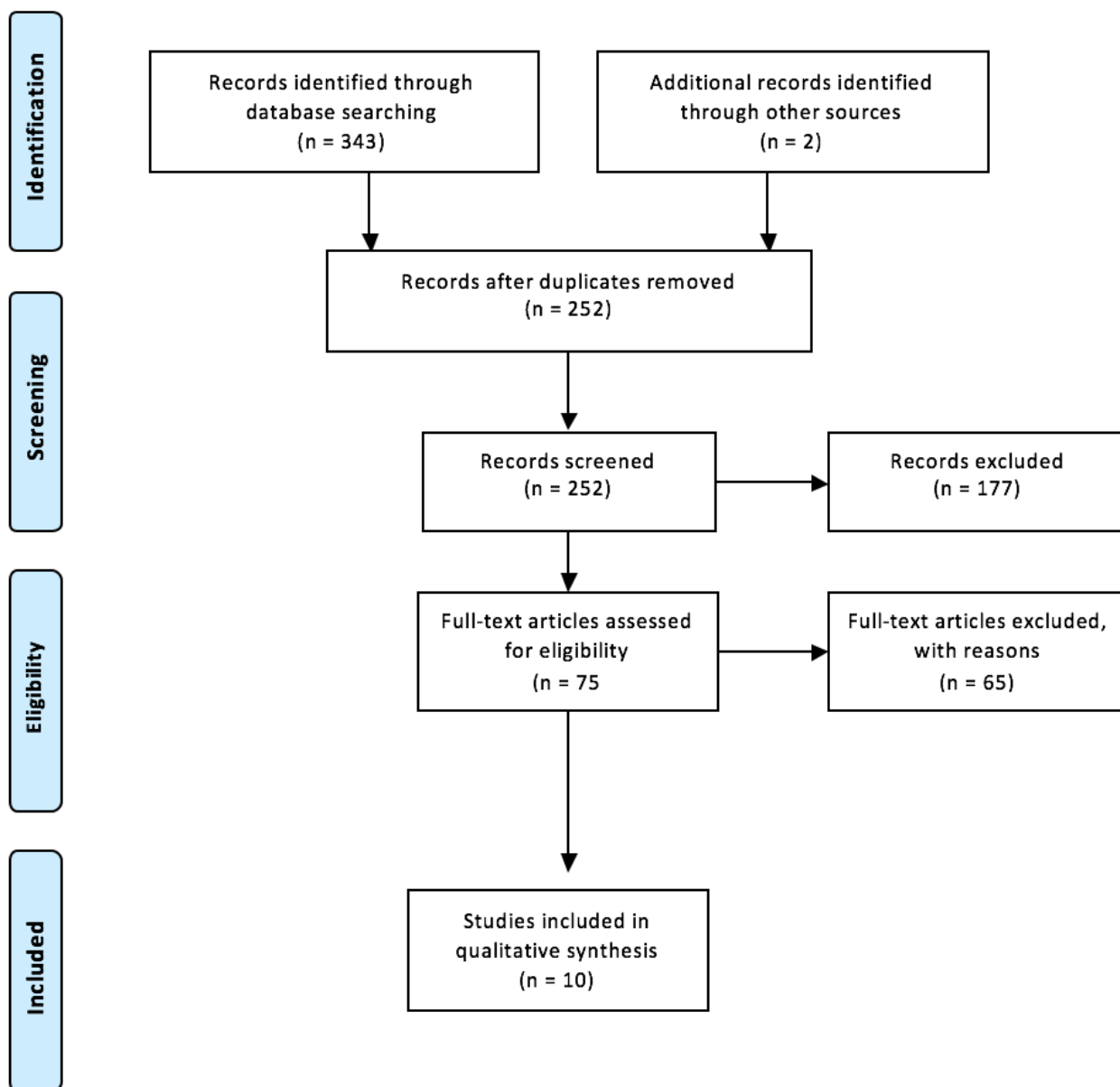


Figure 1. Prism diagram. This figure illustrates the search process and study selection.

Quality Assessment

Qualitative papers selected for retrieval were assessed by two independent reviewers for methodological validity, prior to inclusion in the review, using a standardized critical appraisal

instrument from the JBI-QARI (Appendix 1). Any disagreements that arose between reviewers were resolved through discussion, or with a third reviewer where necessary. Evaluating study quality allowed the researchers to describe the range of quality across the included studies. No studies were excluded on the basis of quality.

Data Extraction

Qualitative data was extracted from the papers included in the review using the standardised data extraction tool from the JBI-QARI (Appendix 2). Data extraction in a meta-aggregation is a multi-phase process, beginning with extracting general details of the papers, including the citation details, population, phenomena of interest and context, as well as the methodology, methods, settings and cultural information, retrieved from papers, and then moving to extraction of findings. Each finding was taken as a verbatim extract of the author's analytic interpretation of their results or data, accompanied by either a participant voice, fieldwork observations or other data. Data was extracted by two independent reviewers and disagreements were negotiated. It was agreed in advance by reviewers that if a study included multiple areas of focus, only findings relating to peer relationships would be extracted from the paper.

Findings were identified for extraction by repeated reading of the text, and selection of the themes from the results section of the paper. A level of credibility was allocated to each extracted finding, based on the reviewers' perceptions that it was supported by specific illustration in the text. Findings were individually rated as either 'Unequivocal' (findings accompanied by an illustration that is beyond reasonable doubt and therefore not open to challenge), 'Credible' (findings accompanied by an illustration lacking clear association with it and therefore open to challenge) and 'Unsupported' (findings not supported by data). Findings rated as unsupported were not included in this review.

Data Synthesis

Qualitative research findings were pooled using JBI's meta-aggregative approach. This involved generating a set of statements that represented the collection of findings, through assembling and categorizing them on the basis of similarity in meaning. Categories can be defined as brief descriptions of a key concept arising from the aggregation of two or more similar findings (JBI, 2014). These were then considered together to form synthesised findings, containing at least two

categories, which are overarching descriptions of a group of categorized findings. Category descriptions and synthesised findings were developed by two independent reviewers, and assessed for similarity by a third reviewer.

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Results

Study characteristics

The review identified ten studies meeting all of the inclusion criteria. The studies were conducted in the UK (5), Australia (2) and the USA (3) (Table 1). Study settings varied, but most were conducted in a school setting. Many of the studies were concerned with autistic adolescents' experiences of friendship (5), though some focused more generally on the social experiences of autistic adolescents (2), or more specifically on peer victimisation (1), reputation concerns (1) or school experiences (1); however, all included studies addressed the topic of peer relationships. Study design and analytical approach varied between studies (see Table 1), though all studies used semi-structured interviews and most used thematic analysis (TA; n=4) or interpretative phenomenological analysis (IPA; n=3) to analyse interview responses.

Reference	Country	Design	Setting	Participant Characteristics	Analytical Approach
Cage, Bird and Pellicano (2016)	UK	Semi-structured interviews	Specialist autism provisions in mainstream secondary schools	12 autistic adolescents (aged 11-15; 11 males, 1 female; IQ>70) and 5 members of school staff.	TA
Daniel and Billingsley (2010)	US	Semi-structured interviews, field notes and document reviews	Participant's homes or alternative location	7 boys (aged 10-14; good verbal communication; IQ>70) and 17 parents and teachers of the boys	IPA
Fisher and Taylor (2015)	USA	Semi-structured interviews	Research site	30 students (aged 17-19; 26 males, 4 females; mean IQ = 93.5)	TA

O'Hagan and Hebron (2016)	UK	Case study, semi-structured interviews	Rural mainstream school with a specialist ASC resource provision	3 male students (aged 13-15), a parent of each boy and 3 key workers	A hybrid approach of incorporating both inductive and deductive TA (Braun & Clarke, 2006)
Sedgewick, Hill, Yates, Pickering and Pellicano (2016)	UK	Mixed methods: Friendship Qualities Scale, Social Responsiveness Scale, semi-structured interviews	Special needs schools	46 students (aged 12-16; 13 autistic girls, 13 girls without autism, 10 autistic boys and 10 boys without autism; all Ps had a Statement of Needs due to a mixture of primary needs, including moderate intellectual disability (n=16) and specific language impairment (n=11)	TA guided by Braun and Clarke (2006)
Tierney, Burns and Kilbey (2016)	UK	Semi-structured interviews	Mutually agreed, private location	10 girls (aged 13-16)	IPA
Vine Foggo and Webster (2016)	Australia	Semi-structured interviews	All via phone or written reflections	7 girls (aged 13-17; mainstream school educated)	Inductive TA
Howard, Cohn and	USA	Case study; semi-structured	Private university	One boy (aged 12; home schooled;	Grounded theory

Orsmond (2006)		interviews, quality of life measures				IQ>70) and his mother
Humphrey and Lewis (2008)	UK	Semi-structured interviews, pupil diaries and pupil drawings	Mainstream secondary school	20 students (aged 11-17)		IPA
Carrington, Templeton and Papinczak (2003)	Australia	Semi-structured interviews	School providing support services to students with different learning needs	5 students (aged 14-17)		The method of constant comparison advocated by Glaser and Strauss (1967)

Table 1. Characteristics of Primary Included Studies

Participant Characteristics

Two of the studies used a female-only sample and three studies investigated only males; the remaining five studies used a sample of males and females (Table 1). Four of the studies interviewed informants, such as a parent or teacher, in addition to the young person interviews. 179 individuals were involved in the included studies.

All of the adolescent participants in the studies had a formal diagnosis of an ASC (including Asperger's syndrome). Their educational settings varied; five studies recruited from mainstream schools, one study recruited from a specialist provision school, a case study participant was home schooled, and for the remaining three studies the participants' educational setting is unknown. Some studies reported their participants had IQ scores in the typical range (n=4) and the remaining studies did not comment on this.

Methodological Quality

All studies justified their use of a qualitative approach or specified the underlying theoretical framework, though few studies reported on their role as a researcher (n=5). All studies described the method of analysis, and there was congruity between the research methodology and interpretation of results, and between the analysis of the data and conclusions drawn. All studies scored reasonably well using the quality assessment instrument (Table 2), with at least 7 out of ten of the quality criterion items being met. It was sometimes unclear (n=3) if the research was ethical according to current criteria, though this was considered to reflect the quality assessment tool's ability to measure only the quality of reporting.

Quality Criterion	Agreed Assessment for Each Study		
	Met Criterion	Did Not Meet Criterion	Unclear
Is there congruity between the stated philosophical perspective and the research methodology?	9	0	1
Is there congruity between the research methodology and the research question or objectives?	10	0	0
Is there congruity between the research methodology and the methods used to collect data?	10	0	0
Is there congruity between the research methodology and the representation and analysis of data?	10	0	0
Is there congruity between the research methodology and the interpretation of results?	10	0	0

Is there a statement locating the researcher culturally or theoretically?	5	4	1
Is the influence of the researcher on the research, and vice-versa, addressed?	5	5	0
Are participants, and their voices, adequately represented?	10	0	0
Is the research ethical according to current criteria or, for recent studies, is there evidence of ethical approval by an appropriate body?	7	0	3
Do conclusions drawn in the research report follow from the analysis, or interpretation, of the data?	10	0	0

Table 2. Methodological Quality of Included Studies ($n=10$) JBI QARI Critical Appraisal Checklist for Interpretive & Critical Research.

Findings of the review

The review revealed synthesized findings under four main themes, illustrated in Figure 2: understanding friendship, having and wanting friends, the challenges of peer relationships, and overcoming challenges. Each primary theme, containing sub-topics, is illustrated in Boxes 1-4, using direct quotes.

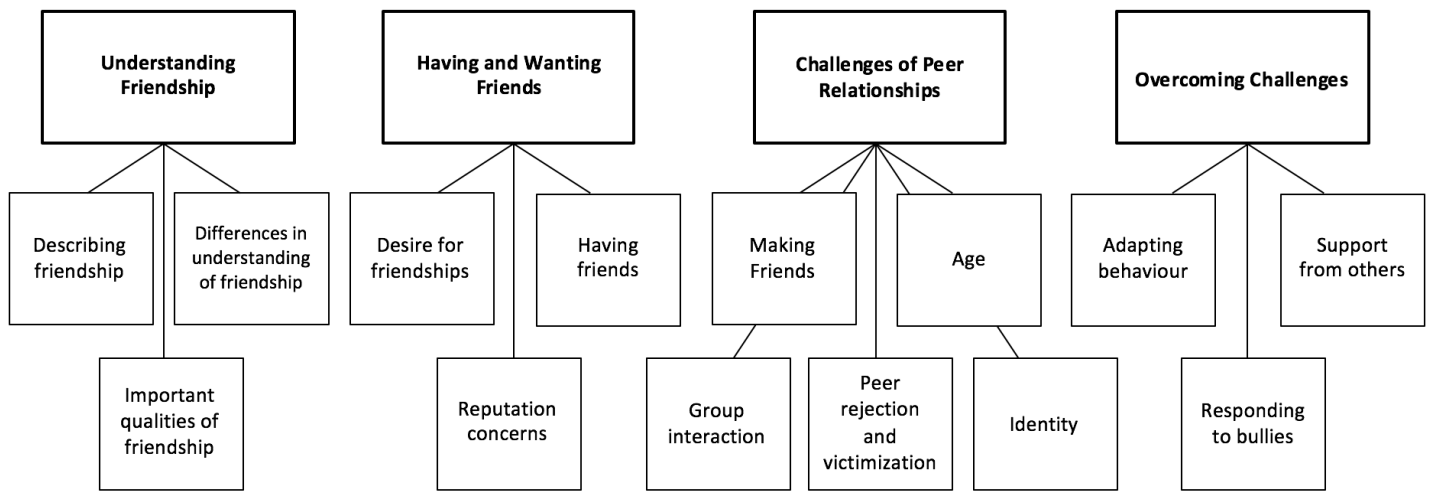


Figure 2. Themes and sub-topics that emerged from the reviewed papers.

Understanding Friendship

Box 1: Understanding Friendship

Describing Friendship

[*about an acquaintance*] “You sort of know them, you talk to them sometimes, but you don’t really do stuff. You just see them at school and that.” (Young person (YP); Carrington et al., 2013)

“I understand that I have friends but it’s quite hard to understand the concept of it.” (YP; Cage et al., 2016)

Differences to others’ understanding

“If they just decided, “I’m gonna list a giant book of teenage girl etiquette so that...every single teenage girl has to live to these standards”... if only that happened...I’d be able to interact with them in the right way.” (YP; Tierney et al., 2016)

“He’s got a couple of friends on there [Xbox live] from primary school who he’s actually getting along a lot better with now they’re not face to face. It’s not what I would call a proper friendship but I think in his mind they’re friends.” (YP’s mother; O’Hagan & Hebron, 2016)

‘I don’t think he truly knows what the word friendship is. Like, I have a friend from childhood and that’s what I would call proper friendship’ (YP’s father; O’Hagan & Hebron, 2016)

Important qualities of friendship

[A friend is...] “someone that looks out for you, and you have to look out the same.” (YP; Howard et al., 2006)

“A friend is someone trustworthy, nice and will understand you.” (YP; Foggo and Webster, 2016)

“They have their friendships, so the two boys in our class who like London transport and buses, there is some form of friendship you can see there. It is not the typical form of playing together but they have a shared interest.” (Learning Support Assistant (LSA); Cage et al., 2016)

Describing friendship. Autistic adolescents could understand and describe friendship, drawing from their own experiences, though they had some difficulty with the concept and using language to describe it (Carrington et al., 2003; Sedgewick et al., 2016). Carrington et al.’s (2003) participants had difficulty talking about friendships in an in-depth way and recognising friendship language. They could understand acquaintances in unemotional terms, which was easier than describing a friend. Some found describing who would not be a friend easier than describing who would be, and ways of describing friendships were somewhat rigid. Sedgewick et al. (2016) found that autistic adolescents often provided ‘scripted’ responses when describing friends, as if they were echoing something they had heard before, for example using adult phrases (e.g. “happy old chaps”). Autistic girls used scripting more in relation to emotional expectations and included phrases such as, “say “Don’t cry” and stuff”.

Differences to others' understanding. Autistic adolescents often understood and experienced friendships differently to their typically developing (TD) peers, according to informants (Tierney et al, 2016; O'Hagen & Hebron, 2016; Cage et al., 2016). Tierney et al. (2016) found that young autistic girls could recognise emotionally-intimate qualities of female-to-female friendships, however they often found that they did not understand, and therefore could not abide by, the covert rules within these relationships. O'Hagan and Hebron (2016) interviewed parents of autistic males, who reported that their sons did not understand friendships in the same way that they did. This finding suggests that there may be differences in the meaning and nature of friendship for those with an ASC, without implying that such relationships are inferior. Cage et al. (2016) also reported that Learning Support Assistants (LSAs) observed that autistic young people's friendships had different qualities to typical students' friendships.

Important qualities of friendship. Many autistic adolescents identified important qualities of friendship, such as having shared interests (O'Hagen & Hebron, 2016; Howard et al., 2006; Daniel & Billingsley, 2010; Foggo & Webster, 2016; Sedgewick et al., 2016), offering help and support, and trust (Howard et al., 2016; Foggo & Webster, 2016). O'Hagan and Hebron's (2016) participants discussed the importance of common interests, which were often related to computer games. In this study, parents of autistic youth spoke about internet friends and their potential advantages, such as removing the pressure of interpreting subtle social cues required in face-to-face contact, and its associated disadvantages, such as online bullying.

Foggo and Webster's (2016) participants spoke about the importance of sharing activities, particularly less structured and social activities, like shopping and going to the cinema. Sedgewick et al.'s (2016) participants noted that not having the same interests could be a barrier to being friends, which was similar for both non-autistic girls and autistic boys, suggesting commonalities in the nature of friendship. Howard et al.'s (2016) case study of one male participant highlighted other factors that were considered important in friendship, such as offering help and support to each other, caring and responding, and seeing friends regularly. However, as this participant had attended some social skills training, it is difficult to ascertain where these ideas about friendship came from.

Although it appears as though autistic adolescents are able to describe qualities of a good friend,

Cage et al. (2016) highlighted that these descriptions are often limited and do not include all three dimensions of friendship (i.e. affection, intimacy and companionship) outlined by Bauminger and Kasari (2000). The students' lack of discussion of intimacy as a defining feature of friendship may also go towards explaining why, despite describing features of friendship, the students' parents and teachers felt that they did not have a fully developed understanding of friendship (O'Hagan & Hebron, 2016).

Having and Wanting Friends

Box 2: Having and Wanting Friends

Desire for friendships

"Tom has always wanted to connect with peers. He is very hopeful. He looks for ways to connect." (YP's mother; Howard et al., 2006)

"Yes, I think having friends around to make you happy is awesome. If you didn't have friends around, which was the case with me for a while, you feel alone and feel as though the whole world is against you." (YP; Foggo & Webster, 2016)

"He mentions it, that he'd like to have a friend come over to play with or to talk to or hang around with [...] I'd probably say he mentions it once a month." (YP's father; O'Hagan & Hebron, 2016)

Having friends

"She's been my friend ever since I was very, very little." (YP; Daniel & Billingsley, 2010)

"He's got a natural group that he sits with but it's a group enforced by the resource rather than created by himself." (LSA; O'Hagan & Hebron, 2016)

"He found it nearly impossible to make friends, and he was very much if there was somebody crossing the road, they would be his friend even if he had never seen them before." (YP's mother; O'Hagan & Hebron, 2016)

Reputation concerns

"He still prefers to be in the main school form than come back here [to the autism provision] for form time. He sees it as more of a stigma coming back here. He wants to be seen as everyone else." (LSA; Cage et al., 2016)

"I don't really know the rules. I just do not really care about being cool" (YP; Cage et al., 2016)

"They think I'm weird because I don't act, talk walk speak and gossip the way they do but I'm proud to be me" (YP; Foggo & Webster, 2016)

Desire for friendships. The reviewed studies indicated that most autistic adolescents had a desire to form friendships (Howard et al., 2016; Foggo & Webster, 2016; Sedgewick et al., 2016;

Tierney et al., 2016), and many had experienced loneliness through that desire not being fulfilled (Sedgewick et al., 2016; O'Hagen & Hebron, 2016; Tierney et al., 2016). Howard et al.'s (2016) participant chose having good friends as one of his top priorities, and described close friendships with four other adolescents. His mother reinforced that he had always had a desire to connect with peers. All but one of Foggo and Webster's (2016) participants indicated that it was important to have friends. Sedgewick et al. (2016) looked at the difference between male and female autistic youths in this domain, and found autistic girls showed similar motivation and friendship quality to non-autistic girls, whereas autistic boys reported having less motivation for social contact relative to boys without autism and to girls with and without autism. Five out of 23 of their autistic participants reported that they would like to have more friends than they had. O'Hagan and Hebron (2016) highlighted that autistic adolescents' desire for friendships was not always fulfilled, and they found that all of their participants reported loneliness. A similar finding came from Tierney et al.'s (2016) research, as they found that autistic adolescents were motivated to have friendships, therefore obstacles to making friends caused discomfort or distress.

Having friends. Most of the autistic adolescents studied had friends, often formed at school, and maintained these friendships despite various challenges, such as school transition (Daniel & Billingsley, 2010; O'Hagen & Hebron, 2016). Daniel and Billingsley (2010) interviewed male autistic adolescents who all reported having friends, and they identified school as the primary place for making friends. Four boys maintained friendships despite school transitions and family moves, but this was reported to be difficult. O'Hagan and Hebron's (2016) findings revealed that autistic adolescents tended to have more friendships with other autistic individuals than with their TD peers, which may in part be because they attended a resource provision that facilitated bonding with autistic peers. Parent perspectives on their children's friendships tended to differ to the adolescents' perspectives. This highlights a potential issue with interviewing only young autistic people about friendship, as their perception of their own friendships may be different to the perspectives of others, which was highlighted by a mother who noted that her son would approach someone crossing the road, whom he had never seen before, and consider him his friend (O'Hagen & Hebron, 2016).

Reputation concerns. The topic of reputation was most prevalent in Cage et al.'s (2016) study, in which autistic adolescents highlighted the difficulty with understanding social rules and

conventions, which at times made it hard to fit it. Participants were capable of being concerned about their reputation, and some of the young people used their understanding of “being cool” to change their behaviour, in order to impress others. This desire to adapt oneself to impress others emphasised the need that many young autistic people have to be accepted socially. Participants were aware that others might describe them differently to how they would describe themselves. Reports from staff supported the findings that autistic young people generally had a desire to fit in with their peers. Foggo and Webster (2016) looked specifically at autistic girls and found that, in contrast to perceptions about their own characteristics, participants were much less aware of what peers thought about them. Three of the participants either stated that they did not know what others thought of them or left the question blank. The other four participants suggested that they were perceived by peers in a negative light due to their refusal to act the way others did.

Challenges of Peer Relationships

Box 3: Challenges of Peer Relationships

Making friends

“I look at them and see if I could be their friend. See if they’re worthy enough to like my stuff as much as them. [...] But the problem is he might get sick of me. And he probably has other friends, probably. So I think, oh, I don’t think so Because I think he might not like me as much and he might not know...how to say no...”(YP; Daniel & Billingsley, 2010)

“Talking to people, being with people; he does try to, he probably tries too hard, which is why he annoys people so much because he doesn’t understand the rules” (Head of autism resource; O’Hagan & Hebron, 2016)

“Yes, I struggle to know how to socialise with people and what is appropriate. Meeting new people in a different place is so hard. Starting conversations and knowing what to say makes me feels really awkward and embarrassed.” (YP; Foggo & Webster, 2016)

Age

“He’s probably become more socially isolated over the four years because of a developing awareness that they’re not very nice to him, without a developing awareness of how to change that relationship.” (Support worker, O’Hagan & Hebron, 2016)

“Well that was because when I went to high school I got quite depressed because of all the stress and chaos that happened at high school.” (YP, Tierney et al., 2016)

Group Interaction

“With a group, there’s loads of different people all at different times and it turns into a murder mystery game of Cluedo where somebody made this go wrong, we’ve got to find out who it is, people blaming each other, splitting each other up and just wrecking everything. I don’t like it at all.” (YP; Tierney, Burns and Kilbey, 2016)

“Yes, when you are sort of sitting there and you feel like everyone else is good friends with each other and you are just sitting there” (YP; Foggo and Webster, 2016).

Peer rejection and victimisation

“It feels like in my classroom that I’m surrounded by lions...I feel like a mouse and everyone else is like a giant cat or something” (YP; Tierney, Burns and Kilbey, 2016)

“I did get bullied quite severely by most of the school actually, well by most of my grade in school” (YP; Fisher et al., 2015)

“I’m easy to aggravate, pretty much. At times, at least. Um, yeah. I was way too easy to target, I was easy pickings is the word.” (YP; Fisher et al., 2015)

Box 3 (continued): Challenges of Peer Relationships

Identity

“[you are] generally wanting to fit in with your peers, but you have the added stress of being autistic.” (LSA; Cage, Bird and Pellicano, 2016)

“I think I had a sort of identity crisis really because I wasn’t quite sure who I was anymore because I was so used to...pretending to be the same as everyone else when really I knew I wasn’t.” (YP; Tierney et al, 2016)

Making friends. Autistic adolescents experienced a number of challenges in making and keeping friends (Daniel & Billingsley, 2010; O’Hagen & Hebron, 2016; Cage et al., 2016; Sedgewick et al., 2016). Daniel and Billingsley (2010) identified making new friends as the most difficult aspect of friendship for autistic adolescents. These difficulties varied with each boy they interviewed; some did not know how to approach others, another worried about trusting others. One participant, however, was enthusiastic about approaching new people to make friends, though with some reservations; he worried that people would be bothered by his talkative nature and knew this could be difficult, therefore distanced himself from peers in order not to disturb them. O’Hagan and Hebron (2016) identified that one of the predominant challenges in making and keeping friends was the difficulty these young people experienced in understanding social conventions. Cage et al.’s (2016) study highlighted that concerns about others liking them made it difficult to make new friends. In terms of maintaining friendships, Sedgewick et al. (2016) found autistic girls in particular may struggle with identifying and dealing with conflict in their social lives.

Age. Multiple studies noted that making and keeping friends became more difficult for these young people as they became older (Tierney et al., 2016; O’Hagen & Hebron, 2016). Tierney et al. (2016) found that changes in expectations as people got older prompted difficulties to emerge or become more problematic, for example school transition may result in changes in expectation and etiquette, which may be particularly challenging for autistic adolescents. O’Hagan and Hebron (2016) found that forming and maintaining friendships seemed to become more difficult as their participants got older. One support worker observed that some of her students had become more socially isolated over the four years they had been at the school, possibly because of a developing awareness that

others were not very kind towards them, or of their difference to their TD peers.

Group interaction. It emerged that autistic adolescents tended to find group interactions particularly difficult (Cage et al., 2016; Tierney et al., 2016; Foggo & Webster, 2016). Cage et al. (2016) identified that strangers' observations could cause anxiety to autistic adolescents, for example when doing things in a group setting. Tierney et al. (2016) also found that group communication was considered challenging by all of their participants. Foggo and Webster (2016) showed that autistic adolescents often found social interaction difficult, and managing conflict in group interactions especially so. Such challenges often arose from differences of opinion and general conflict, for example, "when some people want one thing and the rest want another". Only one participant claimed there were no negatives to socialising with a group of friends. Group interactions were also linked by participants of Foggo and Webster's (2016) study to feelings of social exclusion, and the majority of participants reported that they had felt socially excluded from a group at some time.

Peer rejection and victimisation. Many autistic adolescents had experienced peer rejection or victimisation (O'Hagen & Hebron, 2016; Tierney et al., 2016; Fisher et al., 2015), and subsequent feelings of sadness or anxiety (Tierney et al., 2016; Cage et al., 2016; Fisher et al., 2015). O'Hagan and Hebron (2016) found that peer rejection was experienced by all students they interviewed. Tierney et al. (2016) investigated this topic in more depth and found that when autistic adolescents broke the social rules they were singled out and consequently experienced peer rejection. This led to these young people feeling unable to fit into social situations. Participants attributed some of their experiences of peer rejection to their core autism difficulties. Tierney et al. (2016) noted that when participants began to struggle to cope with extra demands placed on their socio-communication skills as they were expected to make new friends, often mental health difficulties (e.g. affective disorders) emerged. Cage et al.'s (2016) study also highlighted the difficulty with managing social reputation when others might respond negatively to the individual being autistic.

The types of victimisation experienced by autistic adolescents included verbal victimisation (reported most often), physical victimisation, relational victimisation and unspecified (reported bullying but with no specific details; Fisher et al., 2015). Most participants in Fisher et al.'s (2015) study had experienced some form of peer victimisation. Sometimes individuals blamed themselves for the bullying, others felt they were targeted or avoided because of their autism. Some adolescents expressed annoyance with bullies. It is worth noting that few studies mentioned bullying explicitly,

due to it not being the main focus of their paper. Fisher et al.'s (2015) paper was the only paper identified to qualitatively explore peer victimisation in this group.

Identity. Autistic adolescents often had constructed an understanding of their autism, with some accepting and others rejecting it as part of their identity (Humphrey & Lewis, 2008; Cage et al., 2016; Tierney et al., 2016). Humphrey and Lewis (2008) noted that autistic adolescents were faced with the task of constructing an understanding of autism, and some talked about themselves and their autism in negative terms. Others, however, thought autism was simply part of 'who they are'. Characteristics of autism were recognized as making life in school more difficult, for example social naivety can be exploited by other pupils. In Cage et al.'s (2016) study, staff recognized the challenge of being autistic in a neurotypical world. Tierney et al. (2016) highlighted that autistic young peoples' social-communicative difficulties were a barrier to developing friendships, as mutual misunderstandings made bonding difficult. Participants were often aware of this, making it at times difficult to accept and embrace being autistic.

Overcoming challenges

Box 4: Overcoming Challenges

Adapting behaviour

“Yes, my phone’s already going “ring, ring” and then I pick up, “Hello,” and it’s like, “Gosh, not you again!” And then, “ring, ring” . . . “ring, ring” . . . Gosh! . . . And my phone bill’s already far too high.” (YP; Carrington et al., 2003) (*given as example of masquerading*)

“I have a very good memory so I can . . . relate that to a situation the other person’s in . . . I sort of used that memory and just associated with what she knew” (YP; Tierney et al., 2016)

“I see how other people act first then copy them in my own way . . . I change it a little bit so it’s not like I’m really copying them.” (YP; Tierney et al., 2016)

Support from others

“There was something about them that was more like mothering rather than like “oh, get out of here, you’re strange, we don’t want anything to do with you” (YP; Tierney et al., 2016)

“My mom tries to help me be a good friend” (YP; Howard et al., 2006)

Responding to bullies

“I first ignore them, they’re very persistent. Very persistent. And you can’t ignore it when it’s physical” (YP; Fisher et al., 2015)

“Um, my responses were at times not the best. [Ok, why do you say that?] Well, threatening to cut someone up and describing in detail of what you would do, not the smartest thing to do. I have a very active imagination, not the best at times, especially when you’re really angry and you want to scare someone.” (YP; Fisher et al., 2015)

Adapting behaviour. Concern for reputation and awareness of their social communication difficulties led many of the interviewed autistic adolescents to develop strategies for overcoming the challenges they experienced with peer relationships (Carrington et al., 2003; Tierney et al., 2016; Humphrey & Lewis, 2008; Howard et al., 2006). The coping strategies that were discussed in the reviewed papers included ‘masquerading’; pretending to know how social situations work and adapting behaviour accordingly to mask difficulties. Carrington et al. (2003) discussed how participants told stories about the numbers of friends they had and how easy interactions with them were, as a way of masking their social communication difficulties with their peers, though authors did not provide credible evidence to support the suggestion that participants were not being truthful about their interactions with peers. Tierney et al.’s (2016) participants described a range sophisticated of strategies that the autistic adolescents had developed, which utilised innate strengths and enabled

them to appear socially-competent to observers. For example, one young person spoke of showing empathy by matching corresponding memories to another person's situation in order to create a concrete reference point. Another spoke about pretending to be occupied, whilst observing others in order to later imitate them. Tierney et al. (2016) considered that, based on the adolescents' reported experiences, these strategies had negative repercussions on the psychological wellbeing of the majority of participants. For example, autistic adolescents adopting these strategies might have felt as though they were not being true to themselves, which might have hampered access to support as their difficulties were being hidden.

Other, less explicit, ways of adapting the self were mentioned in the reviewed studies. Humphrey and Lewis (2008) discussed their participants having to negotiate 'difference', meaning that autistic students felt forced to adapt themselves in order to submerge in the social world of the school. Howard et al.'s (2006) case study participant recognized sometimes he had to put his own interests aside and 'get interested in others' interests', since he and his friends did not always have the same interests. Tierney et al. (2016) also noted that their participants tried to choose friends who would nurture them, for example autistic adolescents often described female peers who had supported them in their acquisition of social skills.

Support from others. It was reported in multiple studies that sometimes parents and school staff could be used to facilitate autistic adolescents' social relationships (Tierney et al., 2016; Howard et al., 2006). Tierney et al. (2016) found that initiating friendships might be facilitated by parents. Similarly, in Howard et al.'s (2006) case study, as both the participant and his mother described that she facilitated his social relationships by providing opportunities for her son to meet and engage with people, and by offering advice to help him succeed in his friendships.

Responding to bullies. In response to difficulties with peer victimisation, reactions varied. In Fisher et al. (2015)'s study, some autistic adolescents said that they would report incidents of bullying to a member of staff, to try and gain their support, whereas others tried to adapt their own behaviour instead. Many tried to ignore bullies and tried to control their emotions, though some found this difficult to achieve. There were also reports of autistic adolescents trying to retaliate against bullies, whereas others tried to become more intimidating in the future. It was also reported that some participants added qualifiers to try and minimize the seriousness of the situation, for example when one adolescent was describing how a peer tied his shoes together, he stated

dismissively, “I know, poor me.”

Discussion & Implications

How Do Autistic Adolescents Experience Peer Relationships?

Taken together, the findings of this review highlight the autistic adolescent’s desire to belong and feel included in society, which are fundamental human needs (Hagerty, Lynch-Sauer, Patusky, Bouwsema & Collier, 1992). Like all people, autistic adolescents face challenges when navigating their way through their teenage years, some of which might be exacerbated by being autistic, particularly in a mainstream environment, where others may not have the understanding or tolerance of the difference that being autistic might bring. Incredible resilience was demonstrated by autistic adolescents across the reviewed studies in the face of multiple challenges, and many achieved this sense of belonging and connectedness through their peer relationships.

Autistic adolescents understood the concept of friendship, but this understanding was somewhat limited in content and quite different to how their neurotypical peers or others might describe friendship, though only one study in the review directly compared autistic views to NT views. This supports research by Bauminger and Kasari (2000), who found autistic young people aged 8 to 14 had less complete understandings of friendship and loneliness than their TD peers; our findings suggest this extends to older adolescents (Carrington et al., 2003; Sedgewick et al., 2016; Tierney et al., 2016). The current review identified that descriptions of friendship may appear scripted or learned and other informants agreed that autistic adolescents’ friendships had different qualities to typical friendships. Many of the young people interviewed said that they struggled with understanding covert social rules and that sometimes, even if they were able to identify the rules, individuals were not able to follow them. Ruffman et al.’s (2001) and Senju et al.’s (2009) research similarly demonstrates that many autistic youths have difficulty with automatically working out another’s perspective to establish what is expected of them in social situations.

Autistic adolescents could identify qualities that they would find important in a friend, though there tended to be more emphasis on shared interests and activities than on intimate qualities of friendship, such as affection and emotional support. The absence of intimacy in descriptions of friendships was also found about in Bauminger and Kasari’s (2000) paper, who saw low frequency of appearance of

the more affective dimensions (affection and intimacy) in the definitions of a friend provided by autistic adolescents compared to TD adolescents.

Importantly, this review highlighted that most of the autistic adolescents had a desire for friendships. This desire was often met, but it also sometimes led to feelings of loneliness, when it was difficult to achieve. Quantitative research also shows autistic adolescents do have and want friends (e.g. Orsmond et al., 2004; Bauminger & Schulman, 2003). One of the reviewed studies (Sedgewick et al., 2016) looked at gender differences, which highlighted that autistic girls may be more socially motivated than autistic boys. Most of the interviewed young people considered school the best place to make friends, and some friendships were facilitated by an in-school autism resource centre. This meant that autistic adolescents tended to have more autistic friends than their TD peers, though this is an area that warrants further research. Autistic adolescents made lasting friendships, though their parents and teachers often had a different perspective on the quality and quantity of these relationships.

Autistic adolescents were aware that they had a reputation, and understood the concept of others viewing them differently to how they viewed themselves. Some were more concerned about this than others, supporting previous research into how autistic individuals construct their autistic identity (e.g. Baines, 2012; MacLeod, Lewis & Robertson, 2013). There were reports of individuals wanting to adapt themselves to try and appear 'cool', whereas others were intent on staying true to themselves. Not understanding social rules and conventions can make it difficult for autistic young people to manage their reputation and fit in with peers. Some believed they were perceived by others in a negative light, due to their refusal to act like others did.

Autistic adolescents faced multiple challenges in negotiating peer relationships. Some young people identified making friends as the hardest part, providing reasons such as not knowing how to approach others and not trusting others. Misunderstanding social conventions was identified multiple times as something that made it hard to form and maintain friendships, which has been shown previously for this group (Kunce & Mesibov, 1998). Another factor that might affect autistic adolescents' ability to maintain friendships is their difficulty with understanding and dealing with conflict in social settings. Group interactions were identified as being especially difficult for autistic adolescents. Some reported

managing multiple views and conflicts as stressful, others linked group settings to feelings of social exclusion. It was also reported that group social interaction could cause anxiety due to the feeling of being watched by multiple people at once; this should be considered when developing group-based social skills interventions with this population (see Rao, Beidel & Murray, 2008).

It was noted in multiple studies, either by young people or by related informants, that challenges with peer relationships became more difficult to manage, or more prevalent, with age. Longitudinal research has shown that autistic adolescents experience improvements in symptoms of autism, adaptive behaviour, and behavioural responsiveness to the emotions of others in adolescence compared to childhood (McGovern & Sigman, 2005). They may therefore become more aware of changes in etiquette and expectations due to school transition, and gain increased awareness of difference and victimisation. Kuusikko et al. (2008) and Adreon and Stella (2001) identified adolescence as a particularly difficult time for autistic people, as social expectations increase and peer relations become more complex. It is understandable that autistic adolescents would find the impact of these challenges upsetting, given that intimate peer relationships are known to become increasingly valuable for adolescents (Janowski et al., 2014).

Peer rejection and victimisation was found to be common towards autistic adolescents, resulting in experiences of sadness and anxiety, which supports quantitative research findings (e.g. Cappadocia, Weiss & Pepler, 2012; Shtayermman, 2007). Many young people blamed themselves or being autistic for the treatment they received. Some accepted and others rejected autism as part of their identity in social settings, viewing it either in negative terms or as part of 'who they are', but most young people recognized that characteristics of autism made social interactions more difficult. Peer rejection was perceived to result from the autistic adolescents breaking social rules, which supports findings by Kloosterman et al. (2013). The type of victimisation received by the young people varied, with verbal victimisation reported as most common. Autistic adolescents often viewed themselves as easy targets and felt others did not want to be around them, which is why they rejected or bullied them. This supports research findings by Delfabbro et al. (2006), who found that autistic young people may be vulnerable to victimisation and abuse of power by peers due to being marginalized and unprotected within the social group. It is also known that victimisation further exacerbates social difficulties (Van Roekel et al., 2010), making it difficult for these young people to break the cycle of being victimised.

The same authors linked frequent victimisation to mental health problems in autistic young people, as rated by parents, which was also a notion that emerged from the reviewed studies.

Despite facing multiple challenges in peer relationships, the adolescents interviewed in the reviewed studies showed resourcefulness and resilience in their efforts to overcome these challenges. Some reported strategies such as masquerading; trying to mask difficulties with social interaction by presenting themselves as especially socially competent and popular. Examples of masquerading relate to the emerging literature on camouflaging in autistic adults (e.g. Hull et al., 2017).

Autistic adolescents in the reviewed studies reported studying the behaviour of others in order to copy them and learn how they handled social situations. Some participants were able to use sophisticated strategies, such as linking their current experience to a memory of a similar past event, in order to try and empathise with the person in front of them. Autistic adolescents spoke about choosing friends who nurtured them and supported their social skills acquisition. Parents and teachers may also help these young people with their social relationships, supporting previous quantitative findings (e.g. Bauminger & Shulman, 2003). Responses to bullies varied, with some reporting incidents to teachers or parents, and others trying to ignore bullies. Other strategies for responding to victimisation included minimising the seriousness of the incident, intimidation and adapting one's own behaviour to try and stop the bullying from happening in the future. These strategies varied in how adaptive they seemed to be, with some of them being perceived as helpful, and others having the potential for negative psychological consequences. For example, autistic adolescents masking their difficulties might limit their access to support and prevent them from feeling able to be themselves and know themselves (Shroeder et al., 2014).

Study Limitations

All of the studies in this synthesis obtained the perspective of autistic youth about their experiences of peer relationships, however only one study (Sedgewick et al., 2016) also interviewed TD adolescents to ascertain whether autistic adolescents' experiences were different to typical adolescent experiences. In a few of the reviewed studies (Howard et al., 2006; O'Hagan & Hebron, 2016; Daniel & Billingsley, 2010; Cage et al., 2016) other informants were interviewed, for example teachers and parents, in an attempt to gain their perspectives on the young people's friendships, however no one

interviewed the friends in question, to explore and validate the experience of a friendship with an autistic adolescent, as a reciprocal relationship.

It is important to consider the effect of combining studies from different settings, theoretical backgrounds and with different quality ratings. Most studies recruited their samples from mainstream school settings, although there were also studies which recruited from specialist educational settings (Sedgewick et al., 2016) and another was a case study of a boy who had been home schooled (Howard et al., 2006). It would be ideal to treat these participants separately and compare their responses and experiences, however this was beyond the scope of this review. Studies looking at bullying and those looking at friendships were also pooled together for the purpose of the review, due to them both being types of peer relationships, and it is arguable that these concepts should be treated separately.

More generally, the pooling of qualitative findings is subjective, due to there being multiple approaches to data synthesis, multiple perspectives involved in the review and varying study quality. We recognise the usefulness of alternative interpretative approaches, such as meta-ethnography, as well as narrative synthesis and thematic analysis. However, these approaches do not seek to provide guidance for action and aim only to ‘anticipate’ what might be involved in analogous situations and to understand how concepts connect and interact. Meta-aggregation is the preferred approach for developing recommendations for action.

Implications for Policy and Practice

A clear finding from this review is that there are additional challenges with regards to peer relationships for autistic adolescents, compared to their typical peers. Autistic adolescents may require additional support from school staff and parents to help them to understand social rules, build and maintain friendships, and manage bullying. Schools may consider offering social skills training groups, which have shown preliminary efficacy with autistic youth, according to a review by Cappadocia and Weiss (2011). However, Carrington et al.’s (2016) findings highlighted that, while some autistic adolescents perceived the support they received as appropriate and as helping ease their anxieties about school, others felt the ‘visibility’ of additional support provided often made pupils feel their differences were accentuated. Any interventions that are offered or developed should

therefore consider how the young people feel about being supported, and should be developed in a way that is as low-key, and de-stigmatising as possible.

The finding that autistic adolescents tend to mask their difficulties with social interaction, or develop strategies to help them 'fit in' with their peers, is important to consider in future policy and practice developments for this group. School staff and parents may perceive autistic adolescents to be coping better than they are, and masking their difficulties may contribute to these young people developing emotional difficulties. Perhaps if efforts were made, in schools and in public awareness campaigns, to increase the understanding and acceptance of autism, young people would feel less pressure to hide their true selves. Schools provide a platform to foster inclusiveness and encourage understanding of difference, and this should be a priority for schools that wish to support the healthy social-emotional development of autistic young people. Increased awareness and understanding of difference amongst school pupils may increase acceptance, which in turn could reduce bullying and victimisation experienced by autistic adolescents. Humphrey and Hebron (2015) highlighted that research on anti-bullying interventions for autism is in its relative infancy. Current available evidence (e.g. Cappadocia and Weiss, 2011; Myers, Ladner and Koger, 2011; Locke, Ishijima, Kasari & London, 2010) suggests that a multi-level, comprehensive approach to intervention that offers parallel foci on autistic children and young people, their peers, teaching and support staff, and the broader school ethos and climate is warranted. Interventions should acknowledge the elevated risk experienced by this group and should be tailored to their specific needs.

Implications for Research

Based on the findings of this synthesis, further research is needed both to develop understanding of autistic young people's experiences of peer relationships, and to test recommendations and practical strategies that might facilitate meaningful social inclusion for this group. An evident gap in the literature is exploring experiences of peer relationships with autistic adolescents from the peers' perspective. Building a clearer understanding of the nature of the friendships experienced by these young people from both sides would help in the development of strategies to help facilitate these friendships. For example, if autistic young people are experiencing friendships in a way that is different to how those named friends would describe the relationship, it would be important to be aware of this. On the other hand, if autistic adolescents tend to perceive their friendships similarly to

their named friends, this would suggest that recognizing genuine friendship is not an area that requires additional support.

More qualitative research should be undertaken to explore autistic adolescents' experiences of bullying and victimisation, particularly given its association with mental health difficulties (Van Roekel et al., 2010). In the reviewed study by Fisher et al. (2015), both playful and harmful teasing was reported by autistic adolescents. More could be done to explore whether autistic adolescents are able to distinguish between the two, and how they cope with or tolerate each type of teasing. Additionally, given the reported instances of masquerading and reputation management, it is possible that participants across the reviewed studies did not report some of the victimisation they may have been experiencing.

There is distinct need for further research, on a larger scale in this area, in order to develop practice in this area. Pellicano, Dinsmore and Charman (2014) investigated the views of the UK's autism community on the nature of autism research and priorities for future research. Their results suggested that autistic adults, family members, practitioners and researchers felt that priority should be given to the management of practical, social and emotional issues in autistic people of all ages. Autistic adults, parents and practitioners were all concerned that there is insufficient understanding about autism, including both limited expert knowledge and a lack of accurate public awareness. There is guidance (e.g. Department for Education and Skills, 2002) on how to deliver good practice to autistic children and young people, however there has been some concern expressed about the extent to which it is utilized in schools (House of Commons Education and Skills Committee, 2006). Therefore, schools in particular would benefit from research and knowledge transfer that gives an indication of what works, how it works, and in what contexts it works. Such research would benefit from comparing male and female autistic adolescents, as this review has highlighted they may experience and understand peer relationships differently, which therefore has implications for developing targeted interventions.

Conclusions

This synthesis indicates that autistic adolescents have and want friends. There are a number of difficulties they face with making and keeping these friends, primarily due to their difficulty with

understanding social rules and conventions, or knowing how to conform to them. Perhaps due to their perceived 'difference', rejection and peer victimisation is commonly experienced by autistic adolescents, which can cause anxiety, upset and feelings of loneliness. Some autistic adolescents care about being 'cool' and adapting their behaviour in order to fit in. Others wish to stay true to themselves, even if that means they are not accepted by their peer group. School staff and parents should make efforts to increase general understanding and acceptance of the social difficulties faced by autistic adolescents, to reduce incidences of peer victimisation. Additional support should be offered to autistic adolescents to support the development of their social skills and awareness; further research is needed to establish how this could be done most effectively.

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Appendices

Appendix 1: JBI QARI Critical Appraisal Checklist for Interpretive & Critical Research

Reviewer _____ Date _____

Author _____ Year _____ Record Number _____

	Yes	No	Unclear
1. Is there a congruity between the stated philosophical perspective and the research methodology?			
2. Is there a congruity between the research methodology and the research question or objectives?			
3. Is there a congruity between the research methodology and the methods used to collect the data?			
4. Is there a congruity between the research methodology and the representation and analysis of data?			
5. Is there a congruity between the research methodology and the interpretation of results?			
6. Is there a statement locating the researcher culturally or			

theoretically?			
7. Is the influence of the researcher on the research, and vice versa addressed?			
8. Are participants, and their voices, adequately represented?			
9. Is the research ethical according to current criteria or, for recent studies, is there evidence of ethical approval by an appropriate body?			
10. Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?			

Overall appraisal: Include Exclude Seek further info

Comments (including reasons for exclusion): _____

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Appendix 2: Data Extraction Template for Qualitative Evidence

Method	
Methodology	
Interventions	
Setting	
Geographical	
Cultural	
Participants	
Data analysis	
Author's conclusions	
Reviewer's conclusions	

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Finding	
Illustration from publication (including page number)	
Evidence	Unequivocal
	Plausible
	Unsupported
Category	

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Appendix 3: Quari-view graph

Finding <i>Une = unequivocal</i> <i>P = plausible</i> <i>Uns = unsupported</i>	Category	Synthesised finding
Difficulty in talking about friendships in an in-depth way, recognising friendship language (Carrington et al., 2003) (Une)	Autistic adolescents do have some understanding of what is friendship, drawing on their own experiences, but it may be limited and difficult to describe verbally.	Understanding friendships: Autistic adolescents are able to understand and describe friendships, though this may be in a slightly different way to their peers. They can verbalise the qualities they would want in a friend, and express desire to have friends.
Understanding of acquaintance in unemotional terms – easier than describing a friend (Carrington et al., 2003) (Une)		
Ps were better able describe characteristics of peers who would not be friends (Carrington et al., 2003) (Une)		
Ps reported their own experiences of when things have gone wrong in friendships, often rigidity (Carrington et al., 2003) (Une)		
Various descriptions were provided of what is a friend, generally found it difficult to explain (Carrington et al., 2003) (Une)		
The relationally aggressive behaviours characteristic of many typical female adolescent friendships (see Nichols et al.		
2009) such as gossiping, being excluded, and having trust		

<p>betrayed were discussed repeatedly by the autistic girls: “basically just backstabbing, bitchin’ ...people go and say something to one people and the other person goes around and tells another person” (AG) It is worth noting that the autistic girls who described these incidents did not see their friendships overall as being characterized in this way. (Sedgewick et al. 2016) (Une)</p>		
<p>Ps recognized emotionally-intimate quality of peers’ female-female friendships and often found that they did not understand, and therefore could not abide by, the covert rules within these relationships. (Tierney, Burns and Kilbey, 2016) (Une)</p>	<p>Autistic adolescents may understand and experience friendships differently to others</p>	
<p>Parent interviews revealed parents believe their sons’ did not understand friendships in the same way was them – definitions may not reflect experience. (O’Hagan and Hebron, 2016) (Une)</p>		
<p>LSAs reported autistic young peoples’ friendships had different qualities to typical student’s friendships (Cage et al., 2016) (Une)</p>		
<p>Common interests – often computer games. Pros and cons of internet friends (O’Hagan and Hebron, 2016; Howard, Cohn and Orsmond, 2006) (Une)</p>	<p>Autistic adolescents identified important qualities in friendship, such as having shared interests, offering help and support, and trust. They also identified the importance of doing activities</p>	
	<p>together.</p>	

Spoke of activities with friends x2 (Daniel and Billingsley, 2010) (Une)		
All informants said that sharing interests and participating in common activities are part of friendship x3 (Daniel and Billingsley, 2010) (P)		
Proximity – Tom identified seeing friends regularly as important, but you also need more than that to be a true friend. (Howard, Cohn and Orsmond, 2006) (Uns)		
Help and support – the quality of helping and supporting one another were identified as reciprocal elements of friendship (Howard, Cohn and Orsmond, 2006) (Une)		
Caring and responding, forgiveness and reciprocity were also important. (Howard, Cohn and Orsmond, 2006) (Une)		
Friendship qualities include trust, support and respect (Foggo and Webseter, 2016) (Une)		
Sharing experiences was important – particularly less structured and social activities, e.g. shopping, cinema (Foggo and Webseter, 2016) (Une)		
Ps were able to define friendships and desirable characteristics of a good friend – limited and often not including 3 dimensions (affection, intimacy, companionship) (O’Hagan and Hebron, 2016; Cage et al., 2016) (Une)		

<p>All students reported loneliness (O'Hagan and Hebron, 2016) (P)</p>	<p>Many autistic adolescents have a desire to form friendships, and many have experienced loneliness through that desire not being fulfilled, which can be difficult.</p>	<p>Having and wanting friends: Autistic young people do have and want friends, though this is not always easily achieved. They are often aware that they have reputation and some are more concerned about this desire to fit in and manage their reputation than others.</p>
<p>Students had a great desire for friendships that was not always fulfilled (O'Hagan and Hebron, 2016) (P)</p>		
<p>Ps were motivated to have friendships, therefore obstacles to making friends caused discomfort and distress (Tierney, Burns and Kilbey, 2016) (P)</p>		
<p>Tom chose having good friends as one of his top priorities, and described close friendships with four other adolescents. (Howard, Cohn and Orsmond, 2006) (Une)</p>		
<p>Social interactions are important – all bar one p indicated it was important to have friends (Foggo and Webster, 2016) (Une)</p>		
<p>Autistic girls showed similar motivation and friendship quality to non-autistic girls (Sedgewick et al., 2016) (Une)</p>		
<p>Autistic boys reported having both qualitatively different friendships and less motivation for social contact relative to boys without autism and to girls with and without autism (Sedgewick et al., 2016) (Uns)</p>		
<p>All boys reported having friends (Daniel and Billingsley, 2010) (P)</p>	<p>Most autistic adolescents do have friends, often formed at school,</p>	

	and are able to maintain these friendships despite obstacles such as school transition. Students may be more likely to have friends that are autistic than TD peers. Parent perspectives may differ.	
School as primary place for making friends, other places included extra-curricular activities, neighbourhoods, family friends etc. (Daniel and Billingsley, 2010) (P)		
Four boys maintained friendships despite school transitions and family moves, but it was hard to do and usually only the closest friendships remained. (Daniel and Billingsley, 2010) (P)		
Students had more friendships with other people with ASC than TD peers (O'Hagan and Hebron, 2016) (Une)		
Pupils' relationships with peers proved to be both a barrier and an enabler to their successful inclusion in school (Humphrey and Lewis, 2008) (Une)		
Parent perspective often differed to student's perspective (O'Hagan and Hebron, 2016) (Une)		
Variability in the extent to which adolescents were concerned about their reputation – desire to be true vs. difficulty understanding social rules and conventions (Cage et al., 2016) (Une)	Many autistic adolescents are aware that they have a reputation and are aware, despite some difficulty in understanding social conventions, of what it is to be cool, though some are less concerned about it than others.	
	Some have a desire to 'fit in', whereas others prefer to be true to themselves.	

<p>Ps were capable of being concerned about their reputation, understanding what it is to be cool, changing behaviour to impress others etc. (Cage et al., 2016) (U_{ne})</p>		
<p>Difficulty understanding social rules could contribute to reputation concerns (Cage et al., 2016) (U_{ne})</p>		
<p>Ps were aware that they have a reputation, with others describing them differently to how they would describe themselves. They do have a self-concept. (Cage et al., 2016) (P)</p>		
<p>Perception of others – Ps were much less aware of what peers thought of them and when asked what they believed other girls liked, they described interests that didn't appear to interest them (Foggo and Webster, 2016) (U_{ne})</p>		
<p>Staff reported their students have a desire to fit in (Cage et al., 2016) (U_{ne})</p>		
<p>Making new friends was the most difficult aspect to friendship (Daniel and Billingsley, 2010) (P)</p>	<p>Autistic adolescents find it particularly difficult to make friends and keep friends, for reasons such as difficulties in understanding social conventions, not knowing how to approach others, not living near friends, worries about others liking them and difficulty with dealing with conflict. These difficulties may increase with age, as social expectations change.</p>	<p>Challenges of peer relationships: Autistic adolescents experience a number of challenges in making and keeping friends. Many have experienced peer victimisation and loneliness. They may find group interaction particularly difficult, and often have some reputation concerns. These difficulties are likely to relate to their characteristic social-</p>
		<p>communication difficulties, and</p>

		may become increasingly difficult with age.
Difficulties varied with each boy – some didn't know how to approach others, another worried about trust (Daniel and Billingsley, 2010) (P)		
One of the predominant challenges was difficulty in understanding social conventions (O'Hagan and Hebron, 2016) (Une)		
Forming and maintaining friendships seemed to become more difficult as they got older (O'Hagan and Hebron, 2016) (P)		
Worries about others liking them making it hard to make new friends (Cage et al., 2016) (Une)		
Changes in expectations as people got older prompted difficulties to emerge or become more problematic (e.g. school transition – changes in social expectation and etiquette) (Tierney, Burns and Kilbey, 2016) (P)		
All students described the distance they lived from school as the reason they didn't see friends outside of school (O'Hagan and Hebron, 2016) (Une)		
Girls on the autism spectrum in particular may struggle with identifying and dealing with conflict in their social lives. (Sedgewick et al., 2016) (P)		
Strangers observations could cause anxiety (e.g. doing things in a group setting). (Cage et al., 2016) (Une)	Autistic adolescents find group interaction particularly difficult.	

<p>Group communication was found challenging by all. (Tierney, Burns and Kilbey, 2016) (Une)</p>		
<p>Social interactions are difficult – managing conflict in group interactions especially so... all Ps felt they had stopped being friends with someone at some point. (Foggo and Webseter, 2016) (Une)</p>		
<p>Peer rejection was experienced by all students (O'Hagan and Hebron, 2016) (Une)</p>	<p>Many autistic adolescents have experienced peer rejection or victimisation, and subsequent feelings of sadness or anxiety. Perceived reasons for such behaviours may relate to core ASC difficulties, with some blaming themselves.</p>	
<p>When Ps broke the rules, they were identified as different and consequently experienced peer rejection. This led to Ps feeling unable to fit into social situations (Tierney, Burns and Kilbey, 2016) (P)</p>		
<p>Core ASC difficulties resulted in frequent peer-rejection and loneliness. This led to a number of Ps developing secondary MH difficulties (Tierney, Burns and Kilbey, 2016) (P)</p>		
<p>Verbal victimisation – reported most often (9/30), physical victimisation (6/30), relational victimization (4/30) and unspecified – bullied but no specific details (7/30) – most had had some experience of</p>		
<p>victimisation (Fisher et al., 2015) (Une)</p>		

Reasons for bullying included personal attributes (Ps blamed themselves, seen as easy targets, bullies target their disability), and others' opinions of them (e.g. others didn't want to be around them) (Fisher et al., 2015) (Une)		
Some adolescents expressed annoyance with bullies (Fisher et al., 2015) (Une)		
Constructing an understanding of AS – talking about themselves and their AS in negative terms (Humphrey and Lewis, 2008) (Une)	Autistic adolescents often had constructed an understanding of their autism, with some accepting and others rejecting of it. Characteristics associated with ASC were identified as contributors to their difficulties with peers.	
Some pupils thought AS was simply part of 'who they are' (Humphrey and Lewis, 2008) (Une)		
Characteristics associated with AS and life in school – social naivety can be exploited by other pupils (Humphrey and Lewis, 2008) (Une)		
Staff recognised the challenge of living with autism in a neurotypical world` (Cage et al., 2016) (Une)		
Ps social-communicative difficulties were a barrier to developing friendships as mutual misunderstandings made bonding difficult. (Tierney, Burns and Kilbey, 2016) (Une)		
*Repeat Core ASC difficulties resulted in frequent peer-rejection and loneliness. This led to a		

number of Ps developing secondary MH difficulties (Tierney, Burns and Kilbey, 2016) (Une)		
Coping with social deficits by masquerading (Carrington et al., 2003; (Tierney, Burns and Kilbey, 2016)) (P)	Some autistic adolescents have developed coping strategies to mask or cope with their difficulties with peer relationships, such as masquerading, adapting themselves and using past experiences. Sometimes these techniques had negative repercussions.	Overcoming challenges: Many autistic adolescents have developed ways of overcoming or masking difficulties with peer relationships, such as by imitating others. There are also various ways they might respond to peer victimisation. Some of these coping styles can have a negative impact. Others are sometimes used to help facilitate social relationships.
Ps might choose friends who nurtured them; Ps often described female peers who had supported them in their acquisition of social skills. (Tierney, Burns and Kilbey, 2016) (Une)		
Most Ps developed sophisticated strategies which utilized innate strengths and enabled them to appear socially-competent to observers, and not stand out to others. (Tierney, Burns and Kilbey, 2016) (Une)		
e.g. empathy informed by memory – matching corresponding memories to another person's situation in order to create a concrete reference point (Tierney, Burns and Kilbey, 2016) (Une)		
e.g. sophisticated levels of peer-imitation, sometimes pretending to be occupied and actually observing others in order to		

intimidate them (Tierney, Burns and Kilbey, 2016) (Une)		
For the majority, these strategies had negative repercussions on the psychological wellbeing and hampered access to support as difficulties were hidden. (Tierney, Burns and Kilbey, 2016) (P)		
Tom recognised sometimes he had to put his own interests aside or 'get interested in others' interests' since he and his friends did not always have the same interests. (Howard, Cohn and Orsmond, 2006) (Une)		
Negotiating 'difference' – pupils with AS feel forced to adapt themselves in order to submerge themselves in a social world of the school (Humphrey and Lewis, 2008) (Une)		
Many tried to ignore bullies, some were unable to, try to control emotions (Fisher et al., 2015) (Une)	In response to difficulties peer victimisation, reactions varied. Some tried to ignore bullies, others would try to retaliate or minimise the seriousness of the situation.	
Some responded by trying to retaliate, others tried to make themselves more intimidating in the future (Fisher et al., 2015) (Une)		
Some Ps added qualifiers to try and minimise the seriousness of the situation (bullying) (Fisher et al., 2015) (P)		
Initiating friendships might be facilitated by parents (Tierney, Burns and Kilbey, 2016) (Une)	Sometime parents and school staff can be used to facilitate autistic adolescents' social relationships, or how they cope with bullying.	

Some reported the incident, others tried to change their behaviour (Fisher et al., 2015) (Une)		
Tom and his mum described that she facilitated his social relationships by providing opportunities for Tom to meet and engage with people, and by offering advice to help Tom succeed in his friendships. (Howard, Cohn and Orsmond, 2006) (Une)		

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