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Perceptions of Friendship among Adolescents with Autism Spectrum Conditions in a Mainstream High School Resource Provision

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Abstract

Establishing and maintaining friendships is frequently challenging for young people with autism spectrum conditions (ASC). However, few studies have explored influences on friendship development, meaning that knowledge of friendship formation processes remains limited at a critical point in social development. As friendship can impact on well-being and the success of educational inclusion, addressing this issue is important and timely. This study explores friendship among adolescents with ASC, and in particular the meaning and nature of friendship, including perceived influences on its development. Semi-structured interviews were conducted with nine participants: three adolescent students with ASC, a parent of each student, and key teachers. Students were found to have an understanding of friendship, although parents often felt it was theoretical and did not correlate with their own experiences. All of the students expressed a desire for friendship and reported having experienced loneliness. Friendships tended to centre on structured activities such as computer games, which provided both support and obstacles for friendship development. Further individual and contextual influences included levels of maturity, understanding of social rules, school environment, and peer acceptance. The implications of these findings are discussed in relation to research and practice in educational settings.

Keywords: Autism, friendship, resource provision, secondary education, interviews

Perceptions of Friendship among Adolescents with Autism Spectrum Conditions in a Mainstream High School Resource Provision

Introduction

Research suggests that many young people with ASC desire friendship, with a number of studies reporting that they can experience and enjoy stable friendships (e.g., Bauminger et al., 2008a; Bauminger et al., 2008b; Daniel & Billingsley, 2010). However, few studies have explored contributing influences on friendship development for this group of young people, resulting in relatively limited knowledge of friendship formation processes (Bauminger-Zviely, 2013). The current literature base remains largely quantitative, reporting on measurable friendship characteristics of students with ASC, including number of friends, duration of relationships, frequency of interaction, activity patterns, and the characteristics of nominated friends (such as age and gender) (Petrina, Carter, & Stephenson, 2014). Much of these data have been collected via maternal or teacher report, with the voice of young people with ASC less frequently heard (Bauminger-Zviely, Karin, Kimhi, & Agam-Ben-Artzi, 2014; Rowley et al., 2012). As the development of relationships with others is of particular salience in terms of social inclusion during adolescence (Bossaert, Colpin, Pijl, & Petry, 2013), greater knowledge of this area is required in order to promote positive educational outcomes for young people with ASC. This is of particular importance for mainstream educators, as 70% of young people with autism are now educated in this sector (DfE, 2014a). With this in mind, the current study explores friendship development from the perspectives of high-functioning students with ASC, their parents and teachers.

Friendship among young people with ASC

Existing literature provides both conceptual and operational definitions of friendship. A commonly agreed definition of friendship (and the one adopted for this study) is summarised by Petrina et al. (2014) as “a specific form of dyadic peer relationship that involves a complex set of skills incorporating knowledge in the area of social cognition, language, and emotions. It is characterised by a bond that is dynamic, stable, voluntary, and reciprocal in nature, involving a degree of mutual affection and preference, which results in the facilitation of socially related functions such as intimacy, companionship, and closeness” (p. 112). With an extensive research base associating friendship with positive psychosocial outcomes, friendship is considered a “normative experience in adolescence” (Bagwell, Kochel, & Schmidt, 2015, p. 100).

When assessing the definitions of friendship among high-functioning children with ASC, Bauminger and Kasari (2000) scored responses according to three criteria: companionship, intimacy and affection. Other studies employing an operational definition outline specific indices of friendship, such as the relationship being confirmed by a nominated friend, the friendship lasting for a minimum period of time (e.g., six months), and the dyad members taking part in activities outside structured settings (e.g., school) (Bauminger, Solomon, & Rogers, 2010; Howard, Cohn, & Orsmond, 2006). The majority of these studies accept the nomination of a friendship by the participant with ASC as substantiation of its existence (e.g. Calder, Hill, & Pellicano, 2013; Petrina et al., 2014; Rotheram-Fuller, Kasari, Chamberlain, & Locke, 2010; Rowley et al., 2012). This was also the approach adopted in the current study.

Friendship can provide support for students with ASC, and in doing so help them to manage the complex social interactions that are presented daily within the school environment (Rieffe, Camodeca, Pouw, Lange, & Stockmann, 2012). However, the social and emotional support that friendship can offer is dependent on the nature and quality of the relationship

(Bauminger et al., 2008b). Several studies have reported that students with ASC spend less than half the time of their typically developing (TD) peers involved in social interactions and also have less contact with friends outside school (Bauminger, Shulman, & Agam, 2003; Bauminger et al., 2008a). Similarly, a third of the mothers in Little's (2002) study reported that their children had not been invited to a birthday party in the last year, and this was supported by Koegel, Werner, Vismara and Kern Koegel's (2005) later study, leading to concerns that students with ASC are at increased risk of experiencing peer rejection and isolation (Bauminger et al., 2008b). Furthermore, it has been proposed that while many young people with ASC desire more satisfying social interactions, they may lack the skills and knowledge required (Bauminger et al., 2003). Conversely however, many young people with ASC can feel overwhelmed by the expectations of having to be constantly engaged with their peers (e.g. 'sometimes I just want to play by myself' in Calder et al., 2013, p. 18). This highlights the importance of listening to the individual's perspective in order to respond to their needs and ensure that they are supported by an appropriate educational environment.

Current evidence

Existing quantitative data on the nature of friendships for individuals with ASC encompass a wide age range of (mostly high-functioning) participants. For example, Bauminger and colleagues' (2003) study included students aged 8-17, while those in Orsmond and colleagues' (2004) study were aged 10-47. The nature of friendship changes over time, in particular during adolescence when relationships become increasingly complex (Bauminger et al., 2008a), and so generalisation can be problematic. Notwithstanding the importance of friendship during adolescence, only a small number of autism studies to date have focused specifically on this area. Humphrey and Symes' (2011) study drew participants from 12 urban

secondary schools, finding that students with ASC spent more time occupied in solitary activity and less time engaged in co-operative interaction with peers compared to comparison groups with dyslexia and no identified special educational needs. As the area in which a student attends school can indirectly influence their experience of friendship, further research involving more rural communities has also been called for (Daniel & Billingsley, 2010).

Much of the research in this area has been conducted quantitatively using parental – overwhelmingly maternal - report (e.g., Bauminger-Zviely et al., 2014; Petrina, Carter, & Stephenson, 2015; Rowley et al., 2012). Nevertheless, study findings have been found to differ according to respondent, such as in the case of internalising problems, where parents typically report lower levels of loneliness and anxiety than their child (Knott, Dunlop, & Mackay, 2006), and social skills where young people tend to report higher levels than their parents and teachers (Knott et al., 2006; Myles, Barnhill, Hagiwara, Griswold, & Simpson, 2001). A recent qualitative paper by McNerney, Hill, and Pellicano (2015) adds to this in highlighting differences between adult and student responses when choosing a secondary school. In particular, students emphasised the importance of social relationships considerably more so than their parents and teachers. While not ignoring the significance of parent and teacher perspectives, these findings offer strong support for a multi-informant approach where the young person's perspectives are given equal importance and consideration¹. This is timely, as a shift towards listening to the views of young people and their parents is reflected in the revised Special Educational Needs Code of Practice (DfE, 2014b) in England which places a clear focus on their participation in decision-making at individual and strategic levels.

¹ It is acknowledged that this type of research focuses on those students who are likely to be considered high-functioning.

Nevertheless, Daniel and Billingsley's (2010) study from the US is the only one to date to take a qualitative triangulated approach and interview adolescents, their teachers and parents about friendship. They found that the seven students included in their study all had friends but making friends was the most challenging aspect of friendship for them. Three additional international studies have provided qualitative data specifically on the nature of friendships for students with ASC (Carrington, Templeton, & Papinczak, 2003 in Australia; Howard et al., 2006 in the US; Rossetti, 2012 in the US). Increasingly, contextual factors such as the school environment (which is likely to be influenced by educational systems and national educational policies) have been found to contribute to friendship development.

As is typical of qualitative research, only a small number of participants were included in the existing four studies; the mean number of participants recruited was 2.1 with the mean age 13.9. In addition, this type of research tends to focus on high-functioning individuals who are able to give informed consent and participate fully in the research. Due to the volume of data that is collected in qualitative studies, it is acknowledged that it is impractical for studies to have large participant numbers, nor is the primary aim to generalise their findings. For example, Howard and colleagues' (2006) case study of one 12-year-old boy offers an in-depth insight into his fears and desires with regard to friendship and the quality of his social interactions. Although the boy's feelings are likely to be shared by other adolescents with ASC, ultimately the study describes one unique experience. Therefore, rigorous qualitative research can serve to support and complement (qualitative and quantitative) findings and increase the persuasiveness of conclusions.

Rationale

This study aimed to address gaps in the current literature regarding influences on friendship development for adolescents with ASC both at an individual and contextual level. It also enriches the growing body of quantitative data reporting on the characteristics of friendship by exploring for the first time the meaning, nature and development of friendship for a group of high-functioning students in a mainstream rural high school in the UK. Greater understanding in this area can help mainstream schools to focus on relationships and their development among students with ASC and their peers, thereby promoting a more positive school experience. In this context, three research questions were used to guide this study: (1) What does friendship mean to high-functioning adolescents with ASC? (2) What is the nature of friendship for high-functioning adolescents with ASC? (3) What are the perceived individual and contextual influences on friendship development for high-functioning adolescents with ASC?

Method

Design

This was a qualitative case study, exploring perceptions of friendship among students with ASC (phenomenon) attending resource provision within a mainstream secondary school (context). Qualitative exploration enables ‘people who are often studied but seldom heard’, (Ferguson, Ferguson, & Taylor, 1992, p.14) - such as adolescents with ASC - to inform research. As case studies allow for deep, contextual understanding and incorporate multiple perspectives (Creswell, Hanson, Clark-Plano & Morales, 2007), this was deemed the most suitable approach to investigate the individual and contextual influences on friendship development from the perspectives of students, teachers and parents.

Participants

Student participants attended a rural mainstream school with a specialist ASC resource provision. The aim of such provisions is to allow students with ASC to access a mainstream curriculum under the direction of specialist teachers. Resource provisions within mainstream schools also provide a ‘safe haven’ for young people with ASC away from the hustle and bustle of the mainstream environment when needed (Jordan, 2005).

Fifteen students accessed the resource provision; however, due to the large volume of data collected through semi-structured interviews, the optimum number of case studies was set at four or less. The school’s special educational needs coordinator (SENCO) identified three participants in accordance with the following inclusion criteria:

- a. had received a diagnosis of ASC or Asperger syndrome (AS) made by a psychiatrist, paediatrician, educational or clinical psychologist
- b. aged between 12 and 16 years’ old
- c. known to have at least one friend
- d. interview questions unlikely to cause distress

A brief overview of the three focus students is given in Table 1 (names have been replaced with pseudonyms):

Table 1. Overview of the three students.

Student 1: Max was in Year 8 (aged 13). He had a statement for AS and also had difficulty identifying colours. Max was an able student and was making steady progress. He needed support with social interaction skills, especially peer friendships. Max enjoyed learning facts from the Guinness Book of Records.

Student 2: Chris was also in Year 8 (aged 13) and had a diagnosis of AS. Chris appeared to be coping well at school but was very anxious and his parents were concerned about his stress levels. Chris found it difficult to make friends. He also found change in routine difficult and needed plenty of preparation time.

Student 3: Aaron was in Year 10 (aged 15). Aaron had a statement for high functioning autistic spectrum disorder and accessed in-class support. Aaron was academically able but struggled with listening skills. Aaron could display challenging behaviour with staff and peers, voicing inappropriate thoughts and comments. Making and maintaining friends was difficult for him and he needed to be reminded of ‘personal space’.

Both parents of each student were invited to interview. However, due to other commitments, only one parent for each YP was available (two mothers and one father). The structure of British secondary schools means that students are taught and supported by numerous staff and so the head of the resource provision assisted in identifying a key adult who worked closely with each student (one support worker, one teaching assistant, and the head of the resource provision).

Materials

The nature of friendship for adolescents with ASC was explored through semi-structured interviews (see Appendix 1). As the students, parents and teachers experienced these friendships from different perspectives and contexts (i.e. school/home; first/second hand), interview schedules were adjusted to accommodate this. To inform the interview questions, Calder et al.’s (2013) semi-structured interview schedule and Baron-Cohen and Wheelwright’s (2003) ‘Friendship Questionnaire’ were used. To minimise the risk of distress (particularly among the students), questions were positively phrased and open-ended (e.g. ‘Can you tell me what friendship means to you?’ and ‘Can you tell me about some of your friends?’). The interview schedule for the parents was structured to explore their child’s friendship development (e.g. ‘Can you tell me about your child’s friendships in primary school?’ and ‘Do you feel their attitude towards friendship has changed over time?’). Questions for school staff aimed to explore the

different roles of friendship within school (e.g. ‘How does the student like to spend breaks and free time at school?’ and ‘Who does the student like to sit with during lessons?’).

Procedure

Ethical approval was granted by the host university. Standard ethical procedures for educational (BERA, 2011) and psychological research (BPS, 2009; 2014) were followed throughout the study. Information was sent to all potential participants, with consent on an opt-in basis. Interviews were conducted by the first author, took place individually at the school at times convenient to each participant, and lasted no more than 30 minutes. They were recorded, transcribed and anonymised before being uploaded to Nvivo 10 (QSR, 2012) for analysis. In addition, in order to reduce researcher bias, interview transcripts were returned to individual participants to check for accuracy and to add further comments.

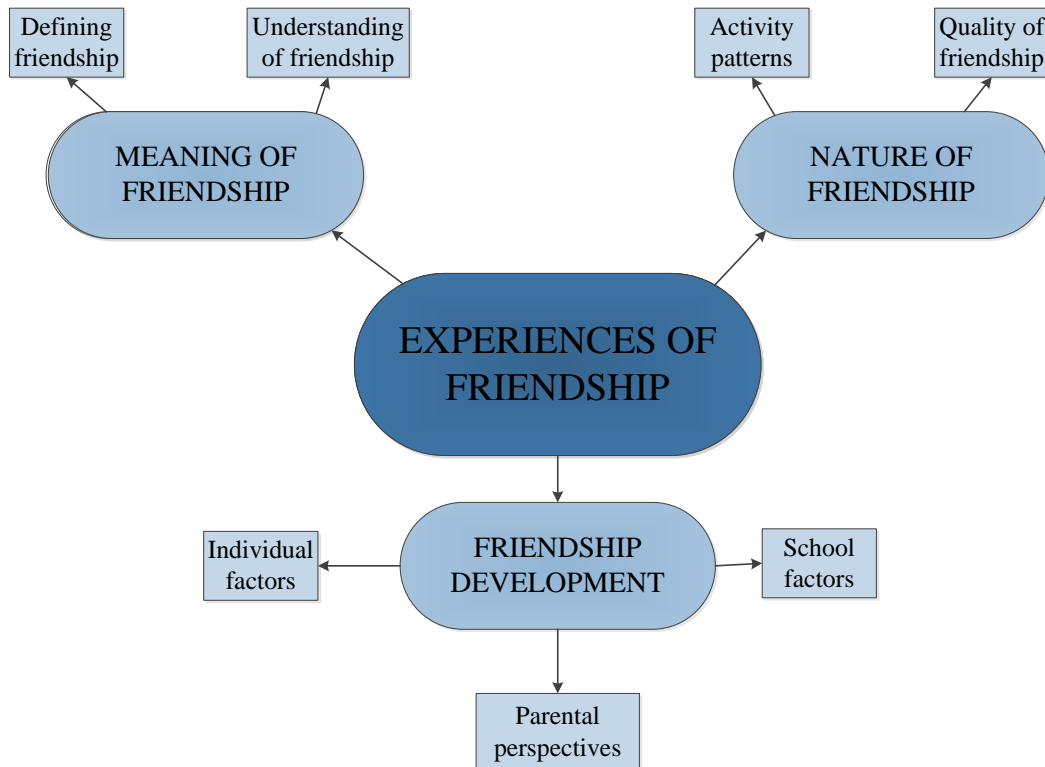
Analytical strategy

A hybrid approach of incorporating both inductive and deductive thematic analysis was adopted (Braun & Clarke, 2006). This allowed the study’s research questions to be central to the process of deductive thematic analysis, while also enabling the data set to be explored for repeated patterns of meaning using inductive coding. To ensure quality and transparency Braun and Clarke’s (2006) six phase guidelines and 15-point checklist of criteria for good thematic analysis were followed.

Findings and discussion

The three main deductive themes along with their inductive subthemes are presented graphically in Figure 1.

Figure 1. Thematic map.



The meaning of friendship

This first theme contains two subthemes: defining and understanding friendship. All of the focus students provided a definition of friendship that demonstrated an understanding of some of the functional roles that friends play, for example being helpful:

Well I suppose friendship means like trust and respect. Like, I go up to a friend and sometimes I'll say something like that I've lost something and they could say: 'Right well go to lost property.' Most of the time they will help me out (Chris).

As well as defining friendship the focus students also identified desirable attributes of a good friend (e.g. "A good attitude; being nice to that person; helping them when they're stuck with something"- Max). However, none of the participants offered a comprehensive definition that included all three dimensions of friendship (i.e. affection, intimacy and companionship)

outlined by Bauminger and Kasari (2000). The students in this study did not mention intimate features of friendship such as sharing secrets; they tended to focus more on companionship and helping one another, supporting findings in previous quantitative studies (Bauminger & Kasari, 2000; Calder et al., 2013; Carrington et al., 2003). It may be that individuals with ASC place a higher value on specific aspects of friendship such as reciprocal help and support compared with other factors such as intimacy and duration.

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, as Max's father highlighted: "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." All of the parents interviewed reported that their sons did not perceive friendship in the same way as them. This suggests that there may be differences in the meaning and nature of friendship for those with ASC without implying that such friendships are inferior.

Alternatively, it is possible that the students' definitions of friendship may not reflect the reality of their relationships. This is supported by Aaron's mother: "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." Furthermore, it may be that the students with ASC repeated learnt features and definitions of friendship, possibly from social skills lessons. It has been postulated that deficits in executive functioning may impair the ability to transfer knowledge into intentional and appropriate behaviour (Petrina et al., 2014). Therefore, there may be a disjunction between what students with ASC learn about friendship and how they apply this knowledge in daily situations.

Nature of friendship

The nature of friendship was divided into subthemes on quality of friendship and activity patterns. It was clear from the students, parents and teaching staff that all three of the young people had a great desire for friendship which was not always fulfilled. This was confirmed by Max's father: "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." All three of the students reported loneliness which resonates strongly with previous research findings (Bauminger & Kasari, 2000; Bauminger et al., 2003; Lasgaard, Nielsen, Eriksen, & Goossens, 2010) This is of concern, as loneliness and poor quality friendships can increase the risk of adolescents with ASC experiencing problematic internalising behaviours, such as heightened anxiety, as well as predisposing them to bullying from others (Bauminger & Kasari, 2000; Hebron & Humphrey, 2013; Locke, Ishijima, Kasari, & London, 2010; Mazurek & Kanne, 2010).

All three students nominated other students accessing the resource provision as their friends rather than mainstream class peers (despite attending predominantly mainstream lessons). The students' friendships tended to be centred on a common interest which was often computer games. They all stated that their favourite way to socialise with friends was by playing and talking about these games, and when they were at home Aaron and Chris would meet up with their friends on Xbox Live. This may reflect a preference for structured interaction, conducted through the already established rules of computer games. This was further supported by the head of the resource provision when discussing Max's friendships:

Very much based on a common interest so I think it would be discussions about computer games. In here [the resource provision] the conversations are about computer games

really and sharing advice about whatever game they're playing on Xbox. So they are interacting with each other, but it's very structured.

The finding in this study that engaging in computer games was the preferred method of friendship activity for students with ASC reflects earlier studies (e.g. Bauminger & Kasari, 2000; Bauminger & Shulman, 2003; Kuo, Orsmond, Cohn, & Coster, 2013). This suggests that students with ASC experience low levels of direct social exchange when interacting with one another, leading to limited opportunities to develop their friendships in face-to-face situations. Furthermore, interacting in computer games seemed to have both positive and negative influences on the development of friendships for the students. For the positive, computers and online gaming served as an avenue for social interaction, a way for the students to stay connected to peers with similar interests and thus represented a way in which friendships could be maintained. This resonates with the literature that suggests that computer games function as a social bridge between adolescents with ASC and their peers (Kuo et al., 2013; Winter-Messiers et al., 2007). However, Chris's mother alludes to the poor quality of Chris's online friendships:

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 his friends.

This is contrary to research on friendship activity patterns for adolescents with ASC which found that engaging in computer games with friends is strongly associated with positive friendship qualities (Kuo et al., 2013). In further support of this, a recent study by Parsons (2013) found that having friends on the internet was the most common format for social contact among adults with ASC. Nevertheless, parents expressed concerns about monitoring online friendships, especially with regard to their child's perceived naivety and vulnerability: "I made a rule that on

the Xbox he could only have friends from the unit [resource provision] because he would make friends with people from other countries and believe what they say” (Aaron’s mother).

Online gaming could therefore function as a way for Aaron and his peers to maintain their friendship and participate in social interaction outside school. However, parental concerns also illustrate the risks of online friendships which are true for all teenagers but may be compounded for students with ASC. Although issues of social vulnerability have been acknowledged in the literature (e.g. Sofronoff, Dark, & Stone, 2011), online bullying of students with ASC is an area which warrants further exploration.

Friendship development

Influences on the development of friendship for the students were divided into three subthemes (individual factors, school factors, and parental perspectives). Both parents and teachers agreed that one of the predominant challenges for the students in developing friendships was the difficulties they had in understanding social conventions. This was highlighted by the head of the resource provision when discussing how Max spent his free time at school:

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, and he makes the wrong comments and he’s very immature in the way he tries to interact.

This highlights the desire for friendship felt by Max but also the challenges faced in integrating socially. Despite wanting to take part, make friends and fit in while in an educationally inclusive context, peer rejection was experienced by all of the students, potentially due to presenting unconventional social behaviour (Rowley et al., 2012).

Aaron’s support worker also identified the factor of age and its association with his growing awareness of difference between himself and his peers. This was significant as Aaron

was the oldest of the students and appeared to have the greatest difficulty in making and sustaining friendships. When discussing whether Aaron's attitudes towards friendship had changed during his time at high school his support worker felt that: "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."

For the students in this study, forming and maintaining friendships indeed appeared to become more difficult as they became older. This is consistent with other studies which have found that older age is associated with a greater risk of friendships becoming less reciprocal (Howard et al., 2006; Rotheram-Fuller et al., 2010; White & Roberson-Nay, 2009).

All of the boys cited the distance they lived from school as the reason why they did not see friends outside school. However, this was not reflected by their parents who all stated that they encouraged their sons to bring friends home. For example, Max's father explained:

I don't know if it just doesn't sort of enter his head, if his friend isn't there in front of him then it doesn't occur to him or if he's thinking that he doesn't really want to see him because he's not in school and he can see him in school.

This is again consistent with the literature (e.g. Bauminger et al., 2008a; Bauminger et al., 2008b; Kuo et al., 2013), although it is not clear why this should be the case. The rural nature of the school, as well as the specialist resource provision meant that the participating students had to travel further than many of their peers, and this may have had an impact on the students' perceived ability to see friends outside school. However, the findings in this study are also broadly similar to those in urban contexts (e.g., Calder, Hill, & Pellicano, 2013; Rossetti, 2015), suggesting that the rurality and distance may not have been salient factors.

This suggests that there is a disjunction between the desire to socialise with friends and achieving this successfully. This may be due to those with ASC not always recognising the link between quality social interaction and loneliness and this is also supported in the literature (Lasgaard et al., 2010). However, it could be that after a day at school with all its social demands, the students are simply too tired to participate in more social interaction.

Nevertheless, the resource provision supported the formation of friendship by serving as a safe haven from the bustle of mainstream school, for example:

He's comfortable in the unit he knows that he's safe, if he's having issues or getting agitated, if things are happening or if he's being picked on then he's happy to go to the unit and he's quite happy in there (Max's father).

Similarly, Aaron's support worker described how Aaron stayed close to the provision during lunch and break times at school: "Around the resource. He'll go out into the corridor but he doesn't stray too far. He used to try and go out to play but it wasn't successful. So he stays around here now." It appeared that for the focus students, previous negative experiences in school resulted in them feeling more comfortable within the resource provision (where peers were also more likely to have shared interests) at unstructured times of the day. The resource provision provided a pre-established social network for the students with ASC. This was reinforced during mainstream lessons as they tended to sit next to other students with ASC due to being supported by the same teaching assistant. Aaron's support worker explained: "He's got a natural group that he sits with but it's a group enforced by the resource rather than created by himself." This finding that the students had more friendships with ASC rather than TD peers is also reflected in the literature (e.g. Bauminger & Kasari, 2000; Locke et al., 2010). It therefore

seems that the resource provision facilitated friendships between those who attended; but the quality of these friendships was questioned by both parents and teachers.

Conclusion

This study aimed to address a gap in the literature regarding the experience, nature and influences on friendship development for high-functioning adolescents with ASC. This is also the first study to utilise a multi-informant qualitative design to investigate the individual and contextual influences on friendship development for adolescents specifically attending a mainstream ASC resource provision. Although there was a degree of convergence between informants, opinions between adults and students tended to differ in terms of whether the students' friends were 'real' friends and why the students did not socialise with friends outside school (despite desiring friendship and expressing feelings of loneliness).

The findings in this study have a number of implications for practice as well as suggestions for future research. Friendship is both desirable and possible for young people with ASC, although a lack of similar interests may be instrumental in hindering its formation. Indeed, the desire to seek out like-minded individuals as friends potentially makes the nature of friendship more similar to that of their TD peers than previous research might suggest. In this context, the authors suggest that educators and researchers consider placing more emphasis on promoting the diverse nature of friendship and the many interests that draw people together, rather than expecting students with ASC (or other conditions) to make adaptations in order to form "successful friendships."

Although students with ASC may find it demanding to form friendships in face-to-face situations, a more structured on-line environment provided friendship opportunities for the young

people in this study. This may have considerable benefits in terms of socialising with like-minded individuals, but the potential for unsafe or inappropriate relationships to develop online is of concern and therefore requires careful supervision both at home and school. Although there are some recent developments in online safety resources for young people with ASC (e.g., Childnet STAR Toolkit), future research should explore additional ways to teach students with ASC (and their parents) how to monitor their safety in online environments.

Linked to this, parent and school awareness of the potential difficulties experienced by students with ASC in understanding the language used in conversations about friendships needs to be raised, so that friendship formation can be facilitated where necessary. The young people in this study were frank and articulate in speaking about the meaning and nature of friendship for them. Even if adults did not necessarily concur, the young people's perspectives need to be accommodated. Where differences are found, these need to be explored together with parents and teaching staff in order to foster greater understanding of friendship, thereby promoting more positive outcomes for young people with ASC as they navigate adolescence.

In the context of the progressive definition of inclusion (i.e. presence, participation, acceptance and achievement) schools need to be aware of how students with ASC are promoted socially and integrated within the whole school environment. This study found that the specialist resource provision was highly influential on the students' friendship development as well as providing a 'safe haven' when needed. However, concerns have been raised that such provision may be associated with an increased risk of bullying and isolation for those who attend (Barnard, Prior, & Potter, 2000; Savage, 2005). This was not apparent in the context of the current study, but more understanding is needed on how the social environment of mainstream schools with and without resource provision can influence friendship development. At a broader school level

holistic approaches that educate the peer group about friendship and acceptance of others (i.e. by using a social-emotional learning approach, Humphrey, 2013) are likely to contribute to a positive school ethos.

While addressing some of the gaps in current research, the authors of this study acknowledge a number of limitations. The students in this research were purposefully recruited by the school's SENCO, introducing the possibility of sampling bias. However, as anonymity and confidentiality were an integral part of this research, it is hoped that those selected were able to express themselves freely. In addition, no girls in the participating school were eligible due to the inclusion criteria, which is unfortunate as ASC is increasingly being identified among girls (Zwaigenbaum et al., 2012). Finally, participants in this study had high functioning ASC (i.e. IQ > 75) which is a subgroup that makes up about 62% of individuals with ASC (Centers for Disease Control and Prevention, 2012). It would therefore be beneficial for future research to include young people from across the ASC spectrum to investigate friendship development.

The findings in this study have highlighted practical implications and directions for future research which could help schools (with and without resource provisions) to modify their approach to promoting friendships among adolescents with ASC. Friendship is a powerful protector against the risk of bullying and social isolation for students with ASC, and it is hoped that the findings in this study can contribute to promoting positive social and educational outcomes for this group of young people.

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Appendix 1: Semi-structured interview schedules

Before each interview consent was reconfirmed and there were some informal ‘warm up’ questions to put interviewees at ease (e.g. interests and hobbies for students). At the end of the interview, participants were debriefed and questions invited.

Students:

1. Can you tell me what friendship means to you? (Prompt: what words come to mind?)
2. What qualities do you feel make a good friend?
3. Could you describe your ideal friend?
4. What do you think the most important thing about friendship is?
5. How does it make you feel when you’re with your friends?
6. Sometimes people like to have one best friend and sometimes people prefer to have a large group of friends. What do you prefer?
7. Can you tell me how you feel when you sit with friends in class?
8. Can you tell me about some friends that you have?
9. Do they go to school with you?
10. Are they the same age/gender as you?
11. What do you like doing with your friends?
12. What kind of things do you do to stay friends?
13. Do you see friends outside of school?

Parents:

1. When did your child first become friends with someone?
2. Can you tell me about your child’s friendships in primary school?

3. Can you tell me about their friendships now?
4. Do you feel their attitude towards friendship has changed over time?
5. Do you feel their ability to integrate has changed over time?
6. What does your child like doing with their friends?
7. Does your child see friends outside of school?
8. Do they have friends outside of school, e.g. from extracurricular clubs/neighbours?

School staff:

1. In terms of academia, where is the student in relation to their year group?
2. Can you tell me about the child's attitudes towards friendship when they first joined the school?
3. Can you tell me about their attitudes towards friendship now?
4. Do you feel their attitude towards friendship has changed over time?
5. Do you feel their ability to integrate has changed over time?
6. Can you tell me about their friendships now?
7. How does the child like to spend breaks and free time at school?
8. Who does the child like to sit with during lessons?
9. Does the child attend any after school clubs? If so, can you tell me about any friendships he/she has in the club?