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Experiences of friendships among autistic children in UK schools: A qualitative meta-synthesis

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Abstract

Friendships can be difficult for autistic children; therefore, understanding their experiences is necessary to support successful and meaningful friendship development. This systematic review aims to synthesise qualitative findings on how autistic children experience friendships. Searches identified six studies exploring the friendship experiences of autistic children in UK primary school settings and their results were synthesised using thematic synthesis. Findings highlight the common and unique experiences of friendship among autistic children. Autistic children reported having a desire for friendships, with many particularly valuing shared interests and companionship, and it was evident that autistic children can and do make and maintain successful friendships. Autistic children across all settings spoke of what they believed friendship to be, and their understanding of friendship differed from that of key adults, highlighting the importance of including autistic children themselves in the design and implementation of social support interventions. Autistic children in special schools appeared to face fewer challenges than peers in mainstream education. We also noted a clear want for more training and education on neurodiversity to increase understanding of the needs and wants of autistic children across all school settings.

Lay Abstract

Research shows that friendships can be difficult for autistic children and that this may differ between school settings. Understanding children's experiences across settings may help support the development of successful and meaningful friendships. This review brought together findings on how autistic children in UK primary school settings experience friendships. Six relevant papers were identified which showed that autistic children reported wanting to have friendships and that many children valued having shared interests and companionship. The review found that autistic children can and do make and maintain successful friendships but their understanding of what a friend is differed from that of key adults. This highlights the importance of including autistic children themselves when designing and implementing interventions. Autistic children in special schools appeared to face fewer challenges than peers in mainstream education. We also found that there was a clear want for more training and education on neurodiversity to increase understanding of the needs and wants of autistic children across all school settings.

Keywords

autism spectrum disorders, friendship, qualitative research, special education, systematic review

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Introduction

Autism is a lifelong, neurodevelopmental condition affecting around one in 100 people (Zeidan et al., 2022) and is often characterised by social communication and interaction patterns which differ from neurotypical norms (APA, 2013). As a result, autistic individuals may experience challenges in developing and maintaining social relationships, such as friendships.

Friendships can be defined as mutual relationships between two or more individuals (APA, 2022) and can act as a protective factor against challenges such as bullying

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(Brendgen & Poulin, 2018). However, evidence suggests that autistic children often face challenges when making and maintaining friendships (Cresswell et al., 2019), with studies showing that both friendship quantity and quality are generally lower for autistic children (Bauminger-Zviely et al., 2014; Rotheram-Fuller et al., 2010). Quantitative studies have found that autistic children tend to nominate fewer peers as friends and vice versa and that they report having fewer reciprocal friendships than neurotypical children (Kasari et al., 2011; Petrino et al., 2014). A recent study exploring the experiences of young autistic and non-autistic adults found differences in friendship activity preferences, with autistic people showing more preference for engaging in a specific activity with friends over meeting up to chat and having a larger proportion of friends that they had never met 'in real life' compared to the non-autistic participants (Finke, 2023) suggesting that autistic individuals may have differing definitions of friendships to non-autistic individuals. This has implications for interventions, which are often based on neurotypical standards and expectations for friendship behaviours. Furthermore, a scoping review exploring the friendship experiences of autistic individuals suggests that they may be at heightened risk of loneliness and poor well-being as a result of friendship challenges (Black et al., 2022), highlighting the importance of understanding these experiences. However, although the review focussed on a wide range of ages, including children, experiences were mainly based on those of adolescents and young people.

As children move from early childhood to middle childhood, friendships typically develop in complexity, moving from being predominantly based on companionship and play, to experiences of intimacy through sharing feelings and experiences with peers (Bauminger et al., 2008; Gifford-Smith & Brownell, 2003). As friendships shift to more emotional and complex social interactions, many autistic children find friendships increasingly challenging (Cook et al., 2018). Despite this, as highlighted above, most research focuses on the experiences of adolescents attending secondary settings. Primary schools differ significantly from secondary schools, posing different barriers and opportunities (Jindal-Snape et al., 2020). For example, primary schools often provide more consistency, allowing students to be taught alongside the same peers and teacher throughout the school day, which has been reported to support friendships in autistic children (Fox et al., 2023). However, secondary schools may provide more diverse opportunities for social interaction (Jindal-Snape et al., 2020), which may also support friendship development in some autistic children. Given the wide range of differences between the settings, there are challenges with using adolescent experiences to understand experiences and support in primary schools. Therefore, research exploring the experiences of primary school children will offer opportunities to explore this change in

friendship interactions and how autistic children can best be supported in more detail.

Schools offer a unique opportunity to explore autistic children's friendships. Research has shown that being around peers similar to oneself supports friendship development and maintenance (McPherson et al., 2001), which may be affected by the school setting. The 'double empathy problem' highlights the reciprocal nature of communication difficulties between autistic individuals and their non-autistic peers. It proposes that misunderstandings in social interactions occur not just because of differences in autistic individuals' social skills, but due to the challenges neurotypical individuals face in understanding and adapting to the communication styles of autistic people (Milton, 2012). Therefore, school-aged autistic children attending mainstream settings may face greater challenges than those in specialist settings due to being around more neurotypical peers, suggesting that the type of school a child attends would impact their friendships. Mainstream schools aim to educate a diverse student population in an inclusive setting, whereas special schools focus exclusively on students with special educational needs and disabilities and provide highly tailored support. Additionally, some mainstream schools offer resource-base provision, which aims to provide targeted educational support to children with additional needs while still allowing children to access a mainstream curriculum. However, previous research shows that those attending mainstream school report higher levels of peer difficulties compared to autistic peers in special schools (Humphrey & Hebron, 2015), and being surrounded by neurotypical social norms has been found to have negative implications for identity development (Mesa & Hamilton, 2022). Furthermore, for children attending resource-bases, moving between settings may disrupt children's opportunity to make and maintain friendships (Halsall et al., 2021). Therefore, children attending different settings will likely have differing experiences of friendship, which requires further exploration.

Given the challenges some autistic children face with friendships, it could be assumed that they may not have the same desire for friendships as their neurotypical peers. However, the literature suggests that autistic children do desire friendships, with some research highlighting their ability to experience and enjoy stable friendships, therefore this is an area that requires further research (Daniel & Billingsley, 2010). Furthermore, although research into autistic children's friendships exists, the literature base is predominantly quantitative or based on the experiences of older autistic individuals. Whilst quantitative studies are important in helping us understand measurable elements of friendship, qualitative studies can build upon these findings to gain an in-depth picture of how autistic children may experience friendships, and how key adults in their lives perceive these experiences, to develop more tailored support. This review aimed to synthesise findings from

qualitative studies focusing on the friendship experiences of primary school-aged autistic children enrolled in school settings in the UK and their key adults. The review was therefore designed to answer the following research questions:

- What are the friendship experiences, or perceived experiences, of autistic children aged 4–11 years in mainstream and specialised school settings in the UK?
- Do autistic children in mainstream settings experience friendships differently to those attending specialised educational settings?

Methods

This review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2015). A systematic literature search was conducted on six databases (PsycNET, PsychINFO, Education Resources Information Centre (ERIC), British Education Index, Web of Science, and Scopus). Search terms focusing on ‘autism’, ‘primary school’, and ‘friendships’ were used to identify articles (see Appendix A for search strings). Grey literature searches were conducted on funding websites (ESRC and EEF) to identify reports not included in the published literature. Pre-prints were searched for on PsyArXiv. Reference lists of included papers were checked to locate further studies. Systematic reviews identified were retained and their included studies were hand-searched. Hand searches were carried out by RW.

Inclusion criteria and quality assessment

Initial searches were conducted in October 2021 and updated in April 2022. In total, combined searches identified 1943 papers (Figure 1). Relevant studies published between 2011 and 2022 were eligible for inclusion, and year limits of 2011–present were applied to databases when searches were conducted. The decision to limit the searches was made to ensure that papers most relevant to current educational settings were included. The Equality Act 2010 prohibits schools from discriminating against disabled children in respect of admissions for a reason related to their disability, meaning that papers within this timeline would likely better reflect the current school settings in the UK, where children are encouraged to be educated in mainstream, inclusive settings where possible. Studies were required to elicit the views of at least one autistic child (aged 4–11 years) attending school in the UK, or a key stakeholder in that child’s life (i.e., a parent, carer, or teacher) and to include discussions of friendships within the study. School systems vary considerably across countries; for example, in the UK, children enter full-time education by the age of 5 years, whereas in Germany or Scandinavia, children are between 6 and 7 years old

before entering formal education (Jürges & Schneider, 2011; Pontoppidan et al., 2018). This means the length of school experiences differs between countries, which may mean children in other countries may have had more or fewer opportunities to make and keep friends. Therefore, literature was limited to the UK to ensure that the school settings and children’s experiences were similar.

Studies fulfilling the inclusion criteria were identified through a screening process carried out by RW and LF. Ten per cent of titles were screened by RW and LF, and disagreements were resolved through discussion. Once agreement was reached, RW screened the remaining articles by title and abstract, raising any uncertainties with the first author. Finally, RW and LF screened the full text of the remaining articles and resolved any issues via discussion. Where it was unclear if a paper should be included due to insufficient information on participants, the papers’ author was contacted; this was done on two occasions. Where the study included those older than 11 years, papers were excluded if the results were not split by age, i.e., if papers included secondary-aged children in the same group as primary-aged children ($n = 3$).

In order to assess the quality of the articles included, the Critical Appraisal Skills Programme (CASP) qualitative checklist was used (CASP, 2018). This tool is designed to assess the quality of qualitative studies. It consists of 10 focused questions relating to the appropriateness of the research question, the suitability of the methodology, and ethical considerations. RW and LF applied the checklist to all articles except Fox et al. (2023), which was written by LF and KA. This paper was assessed by RW only to ensure the assessment was unbiased. Papers were classified as ‘robust’ if they fulfilled at least five of the above criteria. All studies received a rating of 5 or higher (see Appendix B). No papers were excluded based on quality.

Characteristics of included studies

Six papers which met the inclusion criteria. Characteristics of the studies are provided in Appendix B. Participant numbers ranged from one to 14. Most studies ($n = 5$) employed a qualitative data collection approach while one used a mixed-methods approach. For this review, only the qualitative element of the study (Calder et al., 2013) was included.

Data extraction and synthesis

A thematic synthesis was used to explore the findings of the included studies. Thematic synthesis allows for patterns to be identified across studies and themes to be generated to describe those patterns. As this work was carried out as part of a doctoral thesis, the first author carried out the coding and synthesis, following guidelines provided by Thomas and Harden (2008). Data extraction, analysis, and

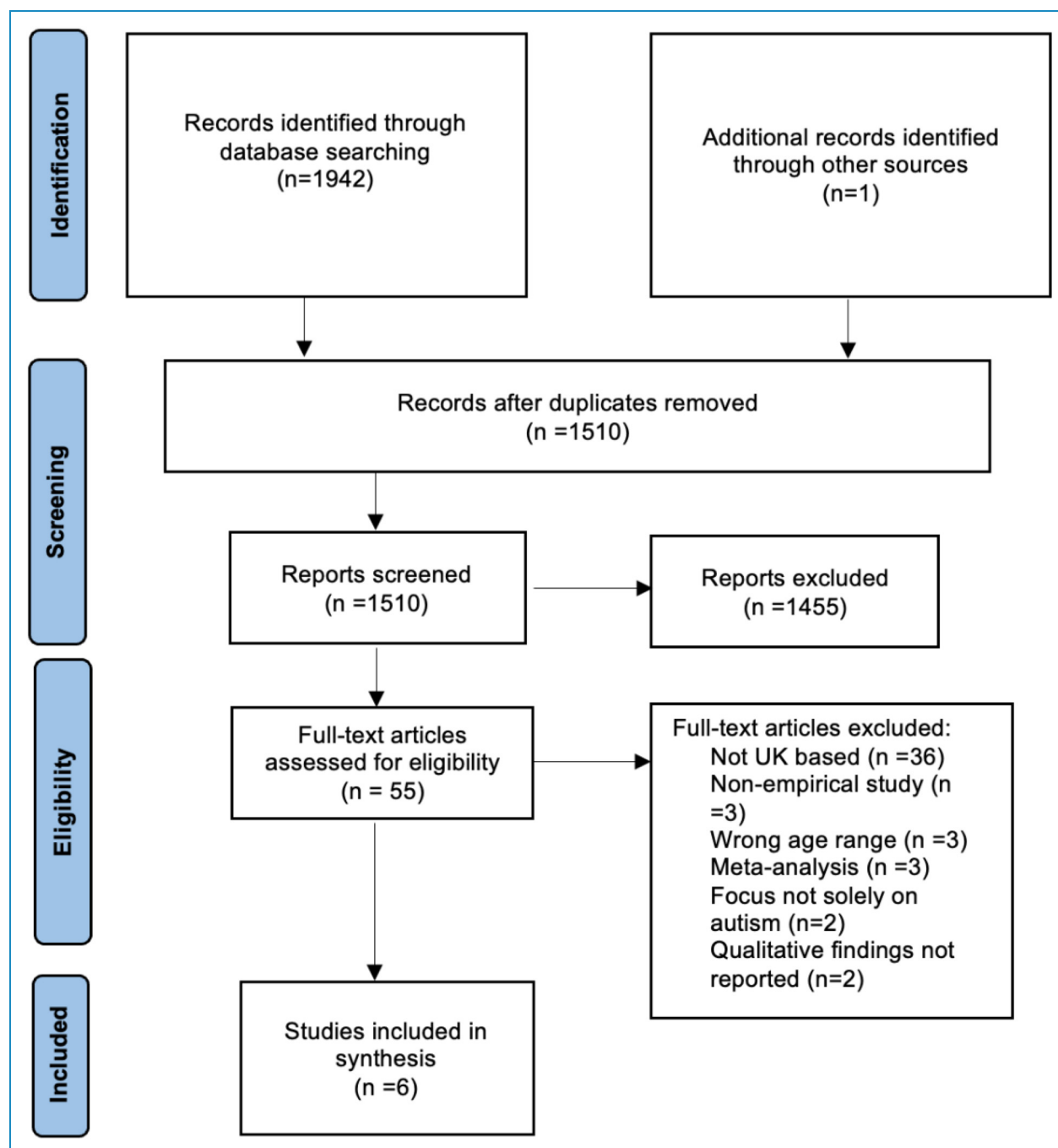


Figure 1. Study one: PRISMA flow diagram.
Source: adapted from Page et al. (2021).

synthesis were shared with KA to ensure that any bias that may have been present in the analysis was discussed and that the process was rigorous while still being the first author's work.

The three partly overlapping stages followed were:

- Line-by-line coding of the results of studies to produce a bank of initial codes

- Organising codes into related categories to produce descriptive themes
- Development of analytical themes by grouping descriptive themes

During the initial line-by-line coding, the first author aimed to translate concepts from one study to another by developing a code bank that could be added to. The results sections

of included papers were copied into NVivo and LF systematically coded participants' quotes and the interpretations of the data by the original authors inductively. After the initial coding, LF revisited the data to examine if any additional levels of coding were required. These codes and corresponding data were shared with KA to discuss interpretation. LF then looked for similarities and differences between the codes, creating new codes to capture the group meaning of the initial codes. From here, further groupings were identified to create descriptive themes. A draft summary of these descriptive themes was shared with KA for review, any disagreements were resolved through discussion. Finally, analytical themes were developed by the first author by going beyond the original findings of the paper by exploring common inferences between descriptive themes. Again, a draft of the analytical themes was shared with KA before agreeing on a final version of the thematic synthesis. In taking this approach, the current review goes beyond the findings of the primary studies to transform the data and provide a fresh interpretation of the phenomenon by analysing the findings of several studies together (Barnett-Page & Thomas, 2009).

Community involvement and positionality

There was no community involvement in this research. It must be acknowledged that there are factors that may have influenced the interpretation of the data. The first author has experience working with autistic children in mainstream education and the third author is parent to an autistic child, which may have made them particularly aware of the difficulties some children face. Furthermore, the authorship team's understanding of autism is influenced by the neurodiversity movement in which autism is viewed as a natural and valuable part of human variation. While acknowledging this positionality, every effort was made to ensure the data were represented through the lens of the original authors and participants.

Results and discussion

Three analytical themes were identified. The themes and sub-themes are presented in Figure 2.

The impact of autism on friendships

Across the studies, areas of friendships that were seen as being unique to autistic children were discussed. Participants spoke about how differing social skills affected friendships, the differing types of friendship needs that autistic children were perceived to have, and the challenges some children faced.

The Role of Social Skills in Friendship Development. Participants across studies discussed how having differing social skills

from peers negatively impacted autistic children's ability to make and maintain friendships, and how others' understanding of their child's needs contributed to friendship difficulties (Bradley & Male, 2017; Calder et al., 2013; Conn, 2014; Potter, 2015; Warren et al., 2021).

Parents in one study spoke about how they believed being autistic affected their child's understanding of the subtleties and nuances which often accompany friendships:

Many parents also noted their child's developmental differences (e.g., their level of 'maturity') and how these impacted on their ability to develop reciprocated friendships. In particular, they observed how their child's autism made it difficult for him/her to understand the subtleties of social interactions, which potentially made them vulnerable. (Calder et al., 2013)

This was echoed by children who reported finding friendships with classmates confusing: 'Well, this may be a little weird, but I don't know if I have friends or not. I don't know if children like me, or I like them' (Calder et al., 2013).

Vulnerability is a key concern for parents of autistic children (Sedgewick et al., 2018), and being unable to identify true friendships due to misunderstanding social cues may leave individuals open to victimisation, which could be further amplified by a lack of a supportive social group. Therefore, these findings suggest that helping autistic children to understand what harmful behaviours may look like and supporting them in identifying genuine friendships, could act as a protective factor as children navigate school and move into adulthood.

Children in resource-bases described how difficulties engaging in conversations resulted in feelings of loneliness. Staff members spoke of how they viewed a lack of flexibility, such as the need to play specific games, as a barrier to forming friendships (Conn, 2014; Warren et al., 2021). For others in mainstream school, children were perceived to have difficulties applying social rules: 'She says all the right things but then you don't see it in practice in the playground' (Calder et al., 2013) which may also link to loneliness. Diagnostic criteria often emphasise autistic individuals' deficits in social skills, including a lack of social-emotional reciprocity (APA, 2013), leading some to believe that autistic individuals do not experience loneliness. Contrastingly, the experiences reported in this synthesis highlight that autistic children do experience loneliness when social interactions are limited or absent in line with previous research showing that autistic individuals may experience loneliness to a greater degree when social interaction is absent, compared to neurotypical individuals (Bauminger et al., 2003).

Adults discussed the need for autistic children to be in control of activities across all settings (Calder et al., 2013; Conn, 2014; Fox et al., 2023). Autistic children were

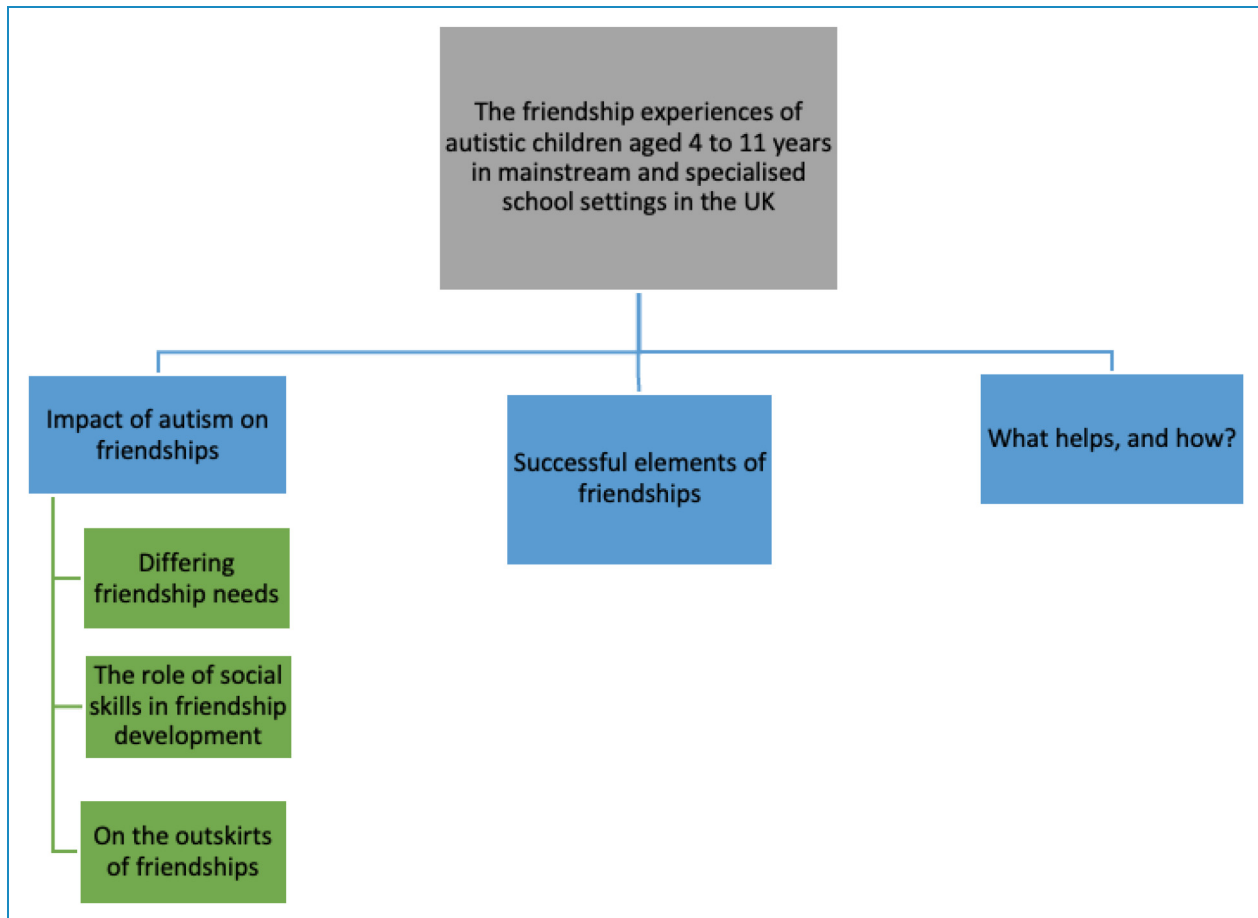


Figure 2. Thematic map of study one. Systematic review analytical themes.

reported to have difficulty negotiating or compromising with peers and being 'me' centred, which was perceived negatively by adults. Being in control of situations was not just limited to playtime, but also to other activities involving peers such as shared reading (Conn, 2014), suggesting that this need was present throughout the school day. Previous research has found that this need to be in control may be a stressor for other children, reducing the number of reciprocal friendships children make (Sedgewick & Pellicano, 2019). Interestingly, this need to be in control was not discussed by children across the included studies, which may imply that for them this was not something they viewed negatively or were not conscious of, future research would benefit from further exploration into this.

For some, having neurodivergent social skills was seen as a barrier to friendship development and participants believed teaching neurotypical social skills would help nurture successful relationships. In three studies, adults identified teaching neurotypical social skills as a priority, arguing that doing so could help increase children's capacity to engage with peers successfully (Calder et al., 2013; Potter, 2015; Warren et al., 2021). Parents of children

attending mainstream school spoke of how those close to children, such as siblings, played a large role in teaching children how to 'effectively' engage with others and teaching staff expressed that they often 'instructed' children what to say in certain situations (Calder et al., 2013). Explicit teaching of social skills via modelling was also seen as key for those attending schools with resource provision (Warren et al., 2021). For others, it appeared that less emphasis was placed on teaching social skills, yet the development of these skills was reported to have happened naturally through time spent with non-autistic peers (Potter, 2015). It was unclear, however, if skills had been developed or if children were engaging in masking behaviours, something which is common in autistic children (Dean et al., 2017). Children did not comment on a need to learn neurotypical social skills, possibly suggesting that this was not a priority for them, or that they did not recognise a meaningful difference.

There are implications to teaching neurotypical social skills. It implies that adults believe autistic children's abilities need to be improved or that they may benefit from acting like their non-autistic peers. Studies show that

promoting neurotypical skills may have negative consequences for autistic people's identity development, resulting in individuals internalising negative perceptions about their diagnosis (Berkovits et al., 2020). Furthermore, the promotion of these skills goes against the values of the neurodiversity movement, which emphasises a need for social change as opposed to changing the behaviours of autistic individuals. It may be more appropriate for neurotypical students to be taught about the differing needs and communication styles of autistic children. As proposed by double empathy theory (Milton, 2012), social misunderstandings are the responsibility of both individuals and therefore the onus should not be on autistic children to adapt to neurotypical norms. Instead, teaching peers about neurodivergent communication styles may help to reduce the challenges faced by some individuals.

Differing friendship needs

Nuances in children's friendships were a prominent discussion point across five studies (Calder et al., 2013; Conn, 2014; Fox et al., 2023; Potter, 2015; Warren et al., 2021). Many autistic children had, or were reported to have, different expectations of what friendships look like to neurotypical children (Calder et al., 2013; Fox et al., 2023; Potter, 2015). Across settings, children were noted not to have 'typical' friendships by parents, which was perceived to influence the friendships they developed: 'he's not big on friendships. He doesn't have typical friendships, I guess, being autistic [...] he's not got that kind of bond with people, with his peers' (Katie)' (Fox et al., 2023). These differing expectations of friendships were only spoken about by adults, suggesting that children may not perceive their friendships as deviating from a norm.

Different expectations of what a friendship is were highlighted by some children who favoured companionship over emotional relationships: 'When asked directly about what a friend means to them, the majority of children described friendship largely in terms of companionship' (Calder et al., 2013). Research shows that autistic children's understanding of friendships often includes behaviours linked with companionship, such as taking part in shared activities (Daniel & Billingsley, 2010), behaviours which are often present in younger neurotypical children (Newcomb & Bagwell, 1995).

Although friendships may differ in nature, children were reported to desire friendships. Teachers across special and mainstream settings spoke about children wanting to be included in friendship groups and how not having friends was a frustration for them, with one mainstream teacher reporting: 'it just really bothers him the fact that he doesn't have a best friend' (Potter, 2015). Parents of those attending mainstream schools spoke of how this desire changed over time: 'Two other parents also noted that their child's interest in other children and desire to

develop friendships had increased with age' (Calder et al., 2013). Although adults across settings were able to identify this want for friendships, this was not discussed by children. As only one study including children reported the questions asked in interviews (Calder et al., 2013), it may be that autistic children were not explicitly asked about their desire for friendships across the other studies, or that discussing the topic was not a priority for them at this time.

For those with successful friendships, smaller peer groups were generally preferred (Calder et al., 2013; Potter, 2015; Warren et al., 2021). This preference for fewer friends (between one and four as reported by these studies) was seen across all settings. Previous research has identified that autistic children often have a smaller number of friendships compared to their non-autistic peers (Dean et al., 2014; Rotheram-Fuller et al., 2010). Given the difficulties autistic children face when navigating social situations, it is unsurprising that having a preference for smaller friendship groups was identified in this review. This preference has implications for the use of popular interventions such as peer mentoring (Kasari et al., 2012), which usually elicit the use of wider peer groups and therefore may be challenging for some autistic children.

On the outskirts of friendships

Across studies, participants spoke about the challenges autistic children faced when navigating friendships (Calder et al., 2013; Potter, 2015; Warren et al., 2021). Exclusion from friendship groups was an area of struggle which had resulted in feelings of loneliness and upset: one autistic child in a mainstream setting stated 'they talk in their private little groups and I'm not in it. I don't really care ... I don't mind if they do that ... actually, I get a bit upset' (Calder et al., 2013). Parents in the same study discussed how they believed this exclusion was linked to their child's diagnosis, and teachers highlighted how exclusions were usually down to behaviour: 'He tends to sort of be in their [the other pupils] faces all the time and no one tends to want to play with him' (Warren et al., 2021). Although some adults were clearly focused on teaching neurotypical skills, these reports of exclusion may suggest that this approach is not successful for all children. Providing more opportunities for children and staff to learn about autism and how neurodivergent children may differ from peers may help alleviate these exclusions and promote understanding across settings (Alcorn et al., 2021).

Some children attending mainstream school faced difficulties with non-reciprocal friendships and others had, or were perceived to have, difficulties with keeping friends and were often on the periphery of friendship groups (Calder et al., 2013). Parents expressed that their child believed they had friends, but that these appeared to be one-sided:

Six mothers reported that their child had friendships that were either unstable or not reciprocated (e.g., ‘He thinks he has a couple of friends ... I wouldn’t say that he has a good strong friendship ... whoever he plays with at the time, he calls them his best friend, but there is no real bond’). (Calder et al., 2013)

This lack of reciprocity was confirmed by teachers and is in line with previous research. Some autistic children believe their friendships are mutual, but it is apparent that other children do not necessarily consider autistic children their friends (Locke et al., 2013). Non-reciprocal friendships may be reported by adults, but not children, as a result of the differing understanding of what autistic children believe friendship to be. It could be suggested that, based on the findings of this review and previous literature, if autistic children emphasise companionship, then engaging in activities may be markers of friendships for them, hence the lack of reports of non-reciprocal friendships.

Autistic children and adults spoke of how being autistic impacted children’s ability to make and maintain friendships. The importance of understanding the different expectations of friendship was a key point raised by adults across all settings; children attending mainstream and resource-bases reported that companionship was a key marker of successful friendships. Challenges surrounding the way in which children interacted with peers with regard to the need to be in control were also discussed. Difficulties with exclusion were highlighted by both children and adults in mainstream or resource-bases. The desire to have friendships was also seen as a key challenge by adults but not children, suggesting that children may prioritise talking about successful elements of their friendships over difficulties. Finally, the perceived benefits of teaching neurotypical social skills were raised by adults in mainstream and resource-bases only, suggesting that the priorities of autistic children differ from those of adults, highlighting the importance of listening to children when planning support.

Successful elements of friendships

Despite some challenges, many areas of friendships were perceived as being successful. Children across mainstream and special schools were reported to have some successful friendships (Bradley & Male, 2017; Calder et al., 2013; Fox et al., 2023; Potter, 2015). For those children who reported having reciprocal friendships, some had been maintained over many years:

There is clear evidence that some of Ben’s attachments to peers have lasted for considerable lengths of time. By the time of the study, one of Ben’s peer relationships with a girl called ‘Vanessa’, whom he met at his previous school, had lasted for over 3 years. (Potter, 2015)

This once again highlights that autistic children can and do have successful and long-lasting friendships, and making and keeping new friends was discussed by parents whose children were transitioning from primary settings into a new school: ‘He made friends instantly which I think is great because that was my biggest worry’ (Fox et al., 2023). This may be important information to share with parents to reduce concern and worry, especially for children who are transitioning into a new setting away from current friendship groups. However, peer nominations were used across some studies to confirm reciprocal friendships. Peer nomination is a technique in which individuals identify peers that they like most and a similar number whom they like least. It could therefore be suggested that peer nominations provide us with an indication of popularity as opposed to successful friendships (Avramidis, 2010). Given the differing expectations of friendships that autistic children may hold, peer nominations may not accurately reflect the number of friendships children feel they have. Speaking directly with autistic children and their peers may better allow us to understand the reciprocity and importance of friendships within this group of individuals.

The value that children ascribe to their friendships was discussed across studies (Bradley & Male, 2017; Fox et al., 2023; Potter, 2015). Adults reported that children placed great importance on friendships and when they were unable to access these friendships it caused great distress:

Parents described their children as desperate to see their friends and be back with peers: ‘he was so desperate to be back with his class [...] I think [he] just desperately missed them and was desperate to see his friends again’ (Bonnie). (Fox et al., 2023)

This suggests that some children do miss and want social interaction with their peers and that friendships are of significance to them. This finding contradicts diagnostic criteria within the DSM-V which suggests that individuals will have ‘deficits in social-emotional reciprocity’ and ‘failure to initiate or respond to social interactions’ (APA, 2013). The evidence presented here shows that, for some children, social isolation is not something they choose. Therefore, providing opportunities for autistic children to engage with peers and develop friendships, both inside and outside of school, may have implications for better mental well-being (O’Connor et al., 2022). Yet care must be taken, as not all children will want or need the same level or type of social interaction. Although evidence shows that friendship is important in reducing loneliness and preventing a range of mental health difficulties (Mazurek, 2014), a recent scoping review highlighted how coping with the demands of friendships left many autistic adults and adolescents feeling exhausted and with heightened anxiety, which may negatively impact on well-

being and lead to social avoidance (Black et al., 2022). An individualised, person-centred approach to support, which incorporates speaking with children about their needs, would be one way of mitigating this risk.

Adults in mainstream schools and resource-bases reported that children were well-liked by their peers (Calder et al., 2013; Warren et al., 2021): '[Kyle] was very likeable as a person, described in almost wholly positive terms by children and adults alike as someone who was friendly, enthusiastic and funny' (Warren et al., 2021). This reported likability suggests that autistic children may be liked by their classmates; however, likability does not necessarily translate into reciprocal friendships. As previously discussed, adults often reported the non-reciprocal nature of friendships, but children did not. It could be that being liked by peers is seen as a marker of successful friendship for autistic children, but adults have a different understanding of what friendship should be and therefore report these interactions differently.

Navigating the success of friendships was discussed across all studies and settings. For parents and teachers of children attending mainstream or special schools, successes were reported in the form of reciprocal friendships, and children were reported to ascribe value to these friendships. For children attending mainstream school and resource-bases, those who did not report two-way friendships were often described as well-liked by peers, suggesting a level of companionship was present, thus reducing the impact of challenges on these autistic children. The differing experiences across this review show the importance of speaking with children and key adults about friendships and children's needs and wants.

What helps, and how?

Adults and children across all studies spoke about the needs of autistic children in relation to friendships and how they believed support could be best implemented. Being friends with children with similar needs (homophily) was found to be supportive for some (Conn, 2014; Fox et al., 2023; Warren et al., 2021). Parents and staff across all settings spoke of how having friends who 'understand each other' played a key role in the maintenance of friendships:

Knowing their child had friends that understood and shared their experience of having additional needs was a positive: 'It's lovely, because they all understand each other, and they just accept each other, and that's what you need. You just need people to accept you for who you are, and they love you for who you are' (Sammy). (Fox et al., 2023)

Teachers reported that children with similar needs were often marginalised by the main peer group. Although this could be a problem, it may also mean that autistic children interact with a smaller group of peers who are more like

them, reducing the need to navigate large social groups. Furthermore, friendships between children that are similar are common among some autistic individuals (Black et al., 2022; Fox & Asbury, 2024). Therefore, this preference for friends with similar needs is in line with previous research. It is also likely that children with similar needs may be more understanding and accepting of the challenges autistic children face. In line with the double empathy problem, autistic children may find communication easier with other autistic children compared to communication with neurotypical children or those with different SENDs, which may be one reason for children's preference for similar peers (Milton, 2012).

For others, shared interests were seen as supportive by those in mainstream schools and resource-bases (Conn, 2014; Potter, 2015). Having a shared interest helped overcome some of the challenges children faced with communicating: 'Kyle appeared to compensate for what he found difficult in communication by his frequent use of products from media culture, using dialogue, sound effects and poses that provided a kind of ready-made language in his play and conversations' (Potter, 2015). Research has shown that having a shared interest is often a key marker for friendships, and autistic children are more likely to engage in conversations if they are known to have shared interests (Ryan et al., 2021).

Although shared interests and needs were found to be supportive by children, the need for others to have an understanding of autism was a prominent topic among adults in all settings (Calder et al., 2013; Fox et al., 2023; Potter, 2015; Warren et al., 2021). Staff members spoke of how having classmates who were understanding and accepting of children's needs helped support successful gameplay, with one staff member suggesting that 'mainstream pupils should be further educated about autism, believing this was an obstacle for enabling positive experiences for some' (Warren et al., 2021).

Parents also spoke of how they had developed an understanding of how their child may not require neurotypical friendships, which had changed how they addressed the topic with their children:

I just pushed him last year [to invite children home] and then this year, I thought, no... He might be upset if I am saying all the time, "Have you got a friend? Haven't you got a friend?" Just bullying him all the time. (Calder et al., 2013)

As previously discussed, providing more education surrounding neurodiversity may be one way to support autistic children with friendships. For example, the Learning About Neurodiversity at School (LEANS) project is a teacher-delivered programme which aims to introduce mainstream pupils aged 8–11 years to the concept of neurodiversity (Alcorn et al., 2021). Focussing on holding a positive

attitude towards neurodiversity, the project shows promise in supporting teachers and pupils to increase their understanding of neurodiversity in the classroom, reducing the need for autistic children to change their behaviour.

For others, direct support from adults, specifically the role that parents play, was seen to support friendships (Calder et al., 2013; Fox et al., 2023; Warren et al., 2021). Parents were found to provide support by encouraging children to partake in clubs and providing opportunities to mix with peers: 'Five parents spoke of supporting their child's social interactions and friendship development by providing access to structured activities, groups and clubs' (Calder et al., 2013). Staff members in the same study also spoke of how they attempted to provide support by encouraging other children to play with the autistic child:

Sometimes an adult gives them [other children] a reminder to invite the children into their games. It is possible that they do not invite him into their game as much as they should but I am constantly reminding them as I go through the playground. (Calder et al., 2013)

This suggests that adults place importance on interacting with others, and often appear to feel the need to make sure that autistic children are in contact with peers to promote friendship development. Although previous research has found that contact with peers via interventions such as peer mentoring has been successful in increasing social inclusion for autistic children in primary classrooms (Kasari et al., 2012), care must be taken when deciding who is a suitable companion. Peers must show sensitivity towards the challenges autistic children may face to limit the risks of bullying and exclusion. Furthermore, past research has found that pairing autistic children up with other autistic children may provide an opportunity to build self-confidence, community connection, and self-knowledge (Botha et al., 2022; Bottema-Beutel et al., 2018). Therefore, providing the opportunity for autistic children to engage with autism-specific peer support may be more beneficial.

Although many adults reported school support was available, for some attending mainstream schools or resource-bases, that support was said to be lacking. Some parents said that they 'were generally unsure about specific interventions in place, if any, to target their child's peer interactions' (Calder et al., 2013) and that the focus of support was on academic achievement and behavioural difficulties, not friendships; if such support for friendships existed, the schools had not communicated this effectively, suggesting that home-school communication may be lacking, even if support is in place. Maintaining a strong link between teachers and parents may help to overcome this barrier in communication and help to provide a more comprehensive support system.

One further explanation for the challenges surrounding support may be that teachers do not feel equipped or able to focus on encouraging friendship development due to the time demands of other pressures. Staff members spoke of how they believed there was a need for further understanding of how to use support in class:

One staff member explained how their physical placement within the class will be usually sat away from their mainstream peers and suggested that an improvement would be for them to sit together: 'They do feel part of the class, but sometimes it feels a little bit still that we [child and staff member] aren't'. (Warren et al., 2021)

It may be that some staff members believe that by sitting autistic children away from their peers they are better able to provide one-to-one support. Such placement, however, may limit the opportunities children have to interact with peers resulting in missed chances to form friendships. Isolating autistic children may also increase their feelings of being different which may reduce inclusion, especially in mainstream settings. The differing wants and needs of autistic students must be taken into consideration when designing support, moving away from the one-size-fits-all approach that appears to be in place across the studies within this review.

Providing support to autistic children was seen as a priority for many and was discussed by adults supporting children in mainstream schools and resource-bases. The need for increased home-school communication was raised, and teaching staff suggested that current classroom support may have room for improvement. Autistic children having friends with similar needs was seen as important across all settings, and peers having similar interests were seen to play a supportive role in friendships within mainstream and resource-bases. Across all settings, increasing the understanding that peers and adults had surrounding autism was thought to be a way in which friendship development could be effectively supported.

Key implications

This review provides a synthesis of literature regarding the experiences and perceptions of autistic children and key adults with regard to friendship experiences. The use of a thematic synthesis allowed for shared experiences across six studies to be identified, and new knowledge to be generated, while staying close to the results of the primary studies. These findings may be of interest to stakeholders in the UK including school leaders, teachers, support staff, parents, autistic people, and those interested in inclusive education more generally.

First, there are key implications for students being educated in different settings. The lower number of friends reported by those attending resource-bases may be due to

the nature of being in a provision that involves moving between different learning spaces, possibly reducing opportunities to form friendships. This disruption can cause challenges in building relationships and highlights the need to tailor support to a child's setting and for additional support to be provided to these students. It was also clear that children found being around those with similar needs and shared interests to support friendships. Understanding this need for shared interests has important implications for all settings. Providing children with a space in which they can explore shared interests, possibly via a lunch club or afterschool club, may provide a safe space for children to form friendships across settings.

Second, the definitions autistic children had of friendships often differed from those of non-autistic friendship norms, with many focussing on companionship. Understanding this want for companionship over a need to share emotions with others has implications for support. For example, interventions such as the 'circle of friends' focus on teaching children social and emotional skills using a group of peers as a support network (Frederickson & Turner, 2003). Understanding that some children may not necessarily want to build emotional ties with others may mean that settings may benefit from spending more time supporting children to develop game-playing skills and to providing spaces in which companionship can flourish.

Finally, it was clear that many children experienced friendship difficulties as a result of other people's understanding of autism. Therefore, including training for both staff and non-autistic pupils on autism may not only support autistic children's friendships but also promote an inclusive and understanding ethos across schools.

Limitations

The findings of this review should be interpreted considering several limitations. First, the review focussed on primary-aged children within the UK. Given that friendships evolve over time, a review that uses a life course approach and takes into consideration the influence of age may be beneficial to understanding the development of friendships more clearly. Furthermore, perspectives from outside of the UK are not included, highlighting the need for research that captures perspectives from different cultures and educational contexts.

Second, the low number of studies included highlights a need for further research into the friendship experiences of primary-aged autistic children in order to create a more complete picture of the lived experiences of children, their families, and school staff. Autistic girls were largely under-represented in the included studies and there is a need for future work to focus on their experiences.

Finally, although children's voices were present in some of the papers, few studies explored the experiences of

friendships among autistic children and their families who did not communicate verbally or had higher support needs. Future work should aim to prioritise the first-hand accounts of those autistic individuals who are under-represented in the existing literature. This will call for the use of alternative participatory methods to capture the voices and experiences of all autistic individuals.

Conclusion

The findings in this study highlight the differing friendship experiences of autistic children in UK primary settings. This review indicates that autistic children have the desire to make friends, with many valuing shared interests, companionship, and having a smaller friendship group. Although many challenges surrounding friendships were discussed, it was evident that autistic children can and do make and maintain successful friendships. Those attending special schools appeared to face fewer challenges in this area and received more support. Findings of this review show that autistic children across all settings spoke of the expectations they had of friendships, which appeared to differ from those of key adults, highlighting the importance of including autistic children in the design and implementation of social support interventions. Finally, the need for more training and education surrounding neurodiversity was called for by many to increase the understanding others have of the needs and wants of autistic children across all school settings.

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Appendix A. Systematic Review Search Strings.

Autis* Or Asperger* Or 'Autism Spectrum Disorder' Or 'Autism Spectrum' Or 'Autism Spectrum Condition' Or Autistic Chil* Or Asd Or Asc	And	Child* Or 'School Child*' Or 'Primary School' Or 'Junior School' Or 'Elementary School' Or 'Key Stage One' Or 'Key Stage Two' Or Ks1 Or Ks2	And	'Educational Setting' Or 'Mainstream School' Or 'Special School' Or 'Inclusion Unit' Or 'Language Unit' Or 'Language Base' Or 'Specialised School' Or 'Specialised Setting' Or 'Special Education' Or School	And	Friend* Or Peer* Or Classmate* Or Friendship* Or 'Peer Relation*' Or 'Peer Relationship*' Or 'Social Relation*' Or 'Peer Nominations' Or 'Relationship Quality' Or Bully* Or Relationship*
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*Boolean operator used to expand search terms automatically.

Appendix B. Study Characteristics of Included Paper.

Study and location	Aim/focus	Informant(s)	Autistic student participants	School setting	Data collection methods	Quality Rating
Bradley & Male (2017) England	To explore the views of autistic young people surrounding their Forest School experience.	Autistic children, 3 mothers and 2 educational professionals also included	Four autistic boys 6–8 years	Special	Flexible, multi-methods used with children. Video observations. One-to-one interviews supported by verbal and visual prompts. Semi-structured interviews carried out with adults.	5
Calder et al., (2013) England	To investigate the extent and nature of autistic children's friendships	Autistic children, 11 mothers, 8 teachers	12 autistic children, eight males, four females 9–11 years	Mainstream	Structured observations. Semi-structured interviews with autistic children and adults.	9
Conn (2014) Wales	To investigate the social engagement of an autistic child.	Autistic child, Class teacher, support worker, mother, peer group.	One male autistic child 9 years	Mainstream with specialist base	Observations, semi-structured interviews with adults, semi-structured conference sessions with children.	7
Fox et al., (2023) England	To explore how parents experienced the impact of school transition on their autistic child's friendships across educational settings during the pandemic	Mothers	14 autistic children and young people. nine autistic children were aged 7–12 years	Special and mainstream	Semi-structured interviews	9
Potter (2015) UK	To gain the autistic child's perspectives on friendships.	Autistic child, mother and 2 school workers	One male autistic child 10 years	Mainstream	Observations, scrapbooking and conversations with children. Semi-structured interviews with adults. Diaries kept by the mother and classroom assistant.	9
Warren et al., (2021) England	To explore how children and teachers experience resourced provision and manage the daily transitions between activities and classes.	Autistic children, 1 class teacher, 5 teaching assistants	Five autistic boys 9–11 years	Resource provision attached to mainstream school	Storyboards and interviews with children, Semi-structured interviews with adults.	8