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Bullying of Children and Adolescents with Autism Spectrum Conditions: A ‘State of the Field’ Review

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Bullying of Children and Adolescents with Autism Spectrum Conditions: A ‘State of the Field’ Review

Abstract

A ‘state of the field’ review of what is currently known about bullying of children and adolescents with autism spectrum conditions (ASC) is presented. We highlight compelling evidence that they are considerably more likely to be bullied than those with other or no special educational needs and disabilities (SEND). Although prevalence estimates vary from study to study, they are always worryingly high, with the highest rate reported as 94%. Those most at risk include (but are not limited to) individuals with Asperger syndrome and/or with milder deficits in social understanding, early adolescents, those attending mainstream school, and those with concurrent behavioural difficulties. Research on anti-bullying interventions for ASC is in its relative infancy. Currently available evidence suggests that a multi-level, comprehensive approach to intervention that offers parallel foci on children and young people with ASC, their peers, teaching and support staff, and the broader school ethos and climate is warranted. A crucial component of the above is the acknowledgement of the elevated risk experienced by those with ASC and the requirement to tailor interventions to their specific needs.

Keywords

Autism spectrum conditions, bullying, victimization, prevalence, risk factors, intervention

Bullying of Children and Adolescents with Autism Spectrum Conditions: A ‘State of the Field’ Review

This paper provides a review of current research findings regarding bullying of children and adolescents with autism spectrum conditions (ASC). Particular attention is paid to prevalence, risk factors, experiences and outcomes, and opportunities for intervention. As we demonstrate below, bullying is a very serious issue for many individuals with ASC, who are affected disproportionately both in terms of prevalence and outcomes. Hence, this paper is intended to contribute to the knowledge base regarding the nature of the problem (e.g. Schroeder et al. 2014), in addition to providing practical, evidence-informed guidance as to how it may be effectively addressed.

Research on bullying of individuals with autism is a central interest of both authors, and indeed our published work occupies space in this field. We feel that this review offers an exemplar case study that brings into sharp relief the contrast between political commitment to inclusive education and the reality ‘at the chalkface’ of the school system. That is, our findings highlight the ways in which the presence, participation, acceptance and achievement of a particular group of learners (e.g. those with ASC) may be fundamentally threatened by their exposure to social aggression. This may be particularly true in mainstream school settings (see ‘Risk and protective factors’ below). Thus, the body of work discussed in this article serves to highlight continuing inequities that need to be addressed if the rhetoric of inclusive education is to become a reality.

Autism is a ‘lifelong developmental disability that affects how a person communicates with, and relates to, other people and the world around them’ (National Autistic Society, 2014). It is a spectrum condition, which means that while people with autism share some common

areas of difficulty and strength, the extent and ways in which they are affected vary widely. The recently published fifth edition of the Diagnostic and Statistical Manual (American Psychiatric Association, 2013) includes the removal of Asperger Syndrome as a separate diagnostic category, although the debate continues over whether it is qualitatively similar to or separate from high-functioning autism. Nevertheless, it is widely agreed that ASC is highly heterogeneous in nature, with social difficulties at its core.

We note from the outset that using an essentially categorical/labelling approach to disability – as we do implicitly here by focusing specifically on ASC – may imply to some readers that we are ignoring the social and political construction of difference and disability. This is not the case. We are acutely aware of these issues and debates, and indeed the fluidity in diagnostic categorisation noted above provides an example of how historical and political factors influence how individuals with autism have been, are, and will be described. However, there is insufficient space for a full discussion of these issues here, and so the interested reader is instead referred to Molloy and Vasil (2002).

What is bullying?

Although bullying is widely accepted as being a form of social aggression (Griffin and Gross 2004), precise definitions have been elusive, due to cultural and historical dimensions, as well as difficulties in reaching consensus over the constituent elements. At a conceptual level, there is the issue of distinctions (or lack thereof) between bullying and related terms such as ‘teasing’ and ‘victimisation’ (Smith et al. 2002). Similarly, we may consider the nature of acts of bullying themselves, which may be physical, verbal, relational, or some combination of these (Olweus 1993). Furthermore, given advancements in technology and its prominent

role in the lives of young people, the notion of cyber-bullying (as contrasted with traditional bullying) has come to the fore in recent years (e.g. Kowalski and Fedina, 2011).

There are numerous ‘essential ingredients’ of bullying. First, it involves a fundamental imbalance of power between perpetrator and victim. Second, acts of bullying are intended to cause harm. Third, bullying is repeated over time. Fourth, it takes place in a social setting (e.g. with peers present). Fifth, it is unprovoked. Of these, the first three are common to most definitions, but the fourth and fifth are more controversial. For example, in terms of provocation, bullying researchers have increasingly recognised the existence of aggressive victims, provocative victims, or more commonly bully-victims (e.g. Haynie et al. 2001).

Closely related to definition/conceptualisation is the issue of measurement. A number of issues have beset the general field of bullying research. Among the range of possible informants (e.g. self-report, teachers, parents, peers), each have different frames of reference and understanding, and therefore provide variable information that can make comparison between studies difficult. The response format and accompanying time frame of a given instrument is also a key source of variability. Finally, the issue of whether to treat bullying as a binary classification (e.g. victims versus non-victims) or matter of degree (e.g. extent of bullying experienced) remains unresolved. Studies tend to opt for the former (e.g. Atria, Strohmeier, and Spiel 2007), but Rose, Swearer, and Espelage (2012) caution that, “understanding victimization among students ... is more complex than simple dichotomies or arbitrary groups” (p.5).

In terms of prevalence in the general population, there is a large amount of variation in the extant literature due to the conceptual and methodological issues outlined above, in addition

to cultural variation and individual differences. However, as a basic comparator for the estimates presented later for ASC, a recent large-scale survey in England found that around 1 in 10 students reported being bullied every day in school (Chamberlain et al. 2010).

Bullying of children with ASC: A conceptual framework

It is our contention that children with ASC are affected disproportionately by bullying, in terms of both prevalence and outcomes. Our thesis draws from three theoretical perspectives. First, consistent with other authors concerned with the nature of bullying (Richard, Schneider, and Mallet 2012; Swearer et al. 2010), Bronfenbrenner's (2005) bio-ecosystemic theory of human development provides a broad framework through which bullying is understood to be influenced by the interaction between the individual and the microsystems he/she inhabits (e.g. peer group, school, home, community). Second, Lewis and Norwich's (2005) 'general differences' model for understanding special educational needs and disabilities (SEND) informs the positioning of our work. Thus, we propose that while bullying may of course be experienced by any child, the nature of ASC greatly elevates risk among affected individuals. Finally, we draw upon Humphrey and Symes' (2011) reciprocal effects peer interaction model (REPIM) to aid our understanding of the processes that underpin bullying exposure.

In Klin, Volkmar, and Sparrow's (2000) terms, children with ASC are considered, "perfect victims" (p.6). But why might they be more likely to be bullied than others? The typical socio-cognitive profile seen in such individuals provides a starting point. The nature of ASC means that navigating the social world is often a difficult and challenging task. For example, knowing how to recognise and respond to bullying behaviour can be problematic for affected individuals, especially when it has become a commonplace occurrence (Jackson, 2002). The

fact that ASC is a 'hidden' disability is also most likely a contributory factor as it may mean that peers struggle to understand or empathise with behavioural differences (and responses to them from school staff). Additionally, broader school factors may play a part. For example, provision of in-class adult support (e.g. teaching assistants) for students with ASC can inadvertently reduce opportunities for social interaction and increase social distance from peers (Symes and Humphrey 2012).

Research on the typical victim profile from general bullying research also supports the 'special case' of ASC. Victims of bullying often exhibit difficulties in social understanding (Garner and Stowe Hinton 2010), occupy low social status (Card and Hodges 2007), and are perceived as 'different' or deviating from peer group norms (Horowitz et al. 2004). The social experience of children with ASC reads remarkably similarly. In terms of social status, they are more rejected and less popular than their typically developing peers (Jones et al. 2010) and those with other SEND (Humphrey and Symes 2010a). They typically have fewer friends (Cairns and Cairns 1994) and more limited social networks (Chamberlain, Kasari, and Rotheram-Fuller 2007) than other children (Locke et al. 2013). Furthermore, those friendships that are established are characterised by lower centrality, acceptance, companionship and reciprocity than is typical (Chamberlain, Kasari, and Rotheram-Fuller 2007). Children with ASC also report significantly lower levels of social support from classmates and friends (Humphrey and Symes 2010a). They are often perceived as "different" by their peers, due to difficulties in understanding and conforming to social norms. This may result from poor understanding of social rules leading to socially incongruent behaviour (Wainscot et al. 2008), and misinterpretation of non-literal language (including jokes) due to pragmatic language difficulties (Bishop et al. 2008).

Reciprocal effects in peer interaction

Humphrey and Symes' (2011) REPIM provides a useful framework for understanding how the above factors may culminate to produce elevated exposure to bullying among those with ASC (see Figure 1). The model proposes a dual route mechanism leading to negative social outcomes. At the level of the young person with ASC, despite the motivation for social interaction, problems in social cognition lead to a lack of appropriate skills to build positive relationships (Kasari, Chamberlain, and Bauminger 2001). At the level of the peer group, a general lack of awareness and understanding of autism means that acceptance of difference is reduced (Campbell et al. 2004).

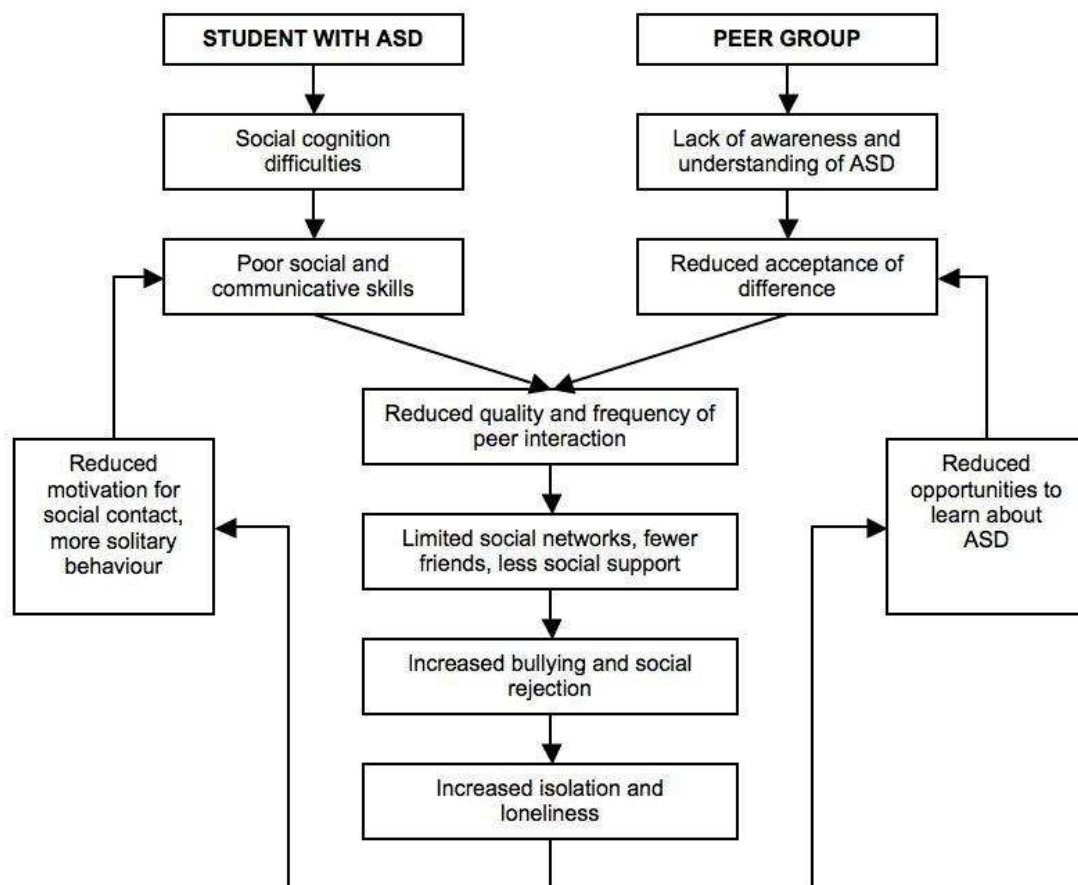


Figure 1. The reciprocal effects peer interaction model (REPIM) for understanding negative social outcomes among children and young people with ASC (Humphrey and Symes, 2011).

The combination of these factors is theorized to culminate in reduced quality and frequency of positive peer interactions among children with ASC (Humphrey and Symes 2011). The issues highlighted above in relation to impoverished social experience are a logical next step, given that such interactions feed the development of peer relationships (Bierman 2005). In turn, students with poor peer relationships are more vulnerable to bullying and social rejection. The natural corollary is increased isolation and loneliness (Bauminger, Schulman, and Agam 2003).

These outcomes ultimately generate reciprocal effects. For the child with ASC, negative social outcomes reduce the motivation for further interaction, creating a pattern of avoidance and solitary behaviour that does not provide adequate opportunities for the development of social and communicative skills. For the peer group, reduced social contact with those with ASC further limits the development of understanding and awareness, accentuating feelings of difference.

Prevalence, risk and protective Factors, experiences and outcomes

Recent years have seen an exponential increase in research focusing on bullying of children with ASC (Schroeder et al. 2014). This research has established that they are significantly more likely to be bullied than typically developing children (see, for example, Wainscot et al. 2008). However, a potential caveat here is that children with SEND more generally are known to be more likely than other children to experience bullying (Chamberlain et al. 2010; Rose, Espelage, and Monda-Amaya 2009; Thompson, Whitney, and Smith 1994). In order to validate a 'general differences' position (see previous section), there is a need for analyses that compare rates of bullying for children with ASC with those of other children with different SEND. Humphrey and Symes' (2010a) research provides one such example,

evidencing a bullying rate approximately 3 times higher than for children with dyslexia or those with no identified difficulties. In another study, Humphrey et al. (2011) demonstrated that children with ASC were second only to those with behavioural, emotional and social difficulties (BESD) in terms of exposure to bullying among a nationally representative sample of students with SEND. More recently, Kloosterman et al. (2013) compared types and experiences of bullying among adolescents with ASC, those with learning disabilities and/or Attention Deficit Hyperactivity Disorder (ADHD), and typically developing controls. As in the above studies, they found that the ASC group reported significantly more victimization overall, with specific group differences emerging in relation to social (ASC > both comparison groups) and physical bullying (ASC > typically developing). These findings were consistent across both self- and parent-report.

In terms of prevalence estimates, Little's (2002) survey in the United States (US) found that 94% of mothers of children with Asperger Syndrome (AS) and non-verbal learning disorder reported their child to have been the victim of bullying during the past twelve months.

Figures from a parental survey reported in the United Kingdom (UK) by the National Autistic Society (NAS) suggested a rate of 40%, rising to 59% for children with AS (Reid and Batten 2006). Using smaller samples, Wainscot et al. (2008) in the UK found that 87% of secondary-age children with AS or high-functioning autism (HFA) reported being bullied at least once a week. Carter (2009) in the US reported a figure of 65% of children with ASC having been bullied in the past year. More recently, Cappadocia, Weiss, and Pepler (2012), using parent-report in a Canadian sample, found that 77% of children with ASC had been bullied in the past month. Finally, another very recent study from the US reported much lower figures, with 46.3% of children with ASC being classified as victims of bullying (Sterzing et al. 2012).

Thus, while prevalence estimates show wide variation, they remain notably higher than most estimates among the general population, or indeed learners with other SEND.

However, as with the general bullying literature, measurement issues can cause considerable ‘noise’. Hebron’s (2012) study is a case in point. She demonstrated that the proportion of children and young people with ASC who can be deemed to be victims of bullying varies considerably according to factors such as the measures, informants and cut-points used (see Table 1). Hence, there is a need for caution in comparing rates of bullying exposure between different studies.

Measures	Teacher-report %				Parent-report %			
Nomination as victim	27.9				43.3			
Role (if a victim)	Victim	Bully-victim			Victim	Bully-victim		
	56.4	43.6			79.3	20.7		
Frequency (if a victim)	Termly	Weekly	Daily		Termly	Weekly	Daily	
	55.9	34.0	10.1		49.1	38.2	12.7	
Bully mean cut-points¹	0	Low	Medium	High	0	Low	Medium	High
	34.6	43.0	18.8	3.6	22.3	35.5	28.9	13.2

¹Low = .001-1; Medium=1.001-2; High=2.001-3

Table 1. Variation in the prevalence of bullying among students with ASC as a function of different methods of measurement (Hebron, 2012, reproduced with permission).

Risk and protective factors

Although in its infancy, the body of research on risk (e.g. variables associated with increased exposure) and protective (e.g. variables associated with decreased exposure) factors for bullying of those with ASC has already provided clear evidence that some salient factors may be unique and/or operate through different mechanisms than those seen in the general population. For example, given that social difficulties are likely to become more apparent as children enter adolescence and social groupings become more complex (Locke et al. 2010), it is questionable whether bullying would decrease with age in ASC, as found in the general bullying research field. Only three studies have explored this, with inconsistent findings (Kasari et al. 2011; Little 2002; Reid and Batten 2006). Behaviour difficulties are also associated with being the victim of bullying in the broader literature, and children with ASC are recognised as having above-average levels of such problems (Macintosh and Dissanayake 2006). Nevertheless, the precursors of behaviour difficulties may be qualitatively different from those of typically developing children, being more likely due to the high levels of anxiety and frustration that can occur in children with ASC as a result of difficulties in social understanding (Macintosh and Dissanayake 2006) and sensory sensitivities (Reid 2011).

A handful of recent studies have explicitly attempted to model risk and protective factors for bullying in ASC using regression-based analyses. Sofronoff, Dark, and Stone (2011) examined the influence of a range of variables, including internalising and externalising difficulties, social skills and social vulnerability, although only the latter demonstrated a significant independent association with bullying in Australian students with ASC. By contrast, Cappadocia, Weiss, and Pepler (2012) found internalising difficulties to be a significant correlate of bullying in a Canadian sample, in addition to age, extent of communication difficulties, parental mental health problems and having fewer friends.

Sterzing et al.'s (2012) analysis identified ethnicity, co-morbidity with attention deficit hyperactivity disorder, lower social skills, higher conversational ability, and attending mainstream classes for 76% or more of the school week (compared to 25% or less) as being significantly associated with bullying among students with ASC in the US. Zablotsky et al.'s (2013) study adds a diagnosis of AS (as opposed to other ASC diagnoses) to the list of risk markers. On a similar note, Rowley et al. (2012) found that bullying increased in mainstream (as opposed to special) schools for children with less severe social impairments, perhaps reflecting the 'hidden' nature of the higher-functioning forms of ASC.

Finally, Hebron and Humphrey's (2013) multi-informant study found that behaviour difficulties, age, use of public transport, educational placement in mainstream settings, and being in receipt of SEND provision that involved external professional support were associated with increased exposure to bullying, with positive relationships and parental engagement emerging as protective factors in teacher- and/or parent-rated models. Taken together, these studies suggest there are a number of salient risk and protective factors for exposure to bullying among children and young people with ASC, although findings have been inconsistent for some variables (e.g., externalising difficulties).

Two notable limitations in current research concern gender and relative rates of bullying among young people with and without intellectual disability (ID), both of which warrant specific focus in future studies. Gender is an under-explored area, and this is likely to reflect the higher rates of diagnosis in boys, meaning that fewer girls participate in studies. Only one study has explored this as a variable to date, with no significant differences found (Hebron and Humphrey 2013). Nevertheless, the potential for the nature of bullying to vary according to gender, as noted in the broader bullying literature (e.g. Borntreger et al., 2009), warrants

further exploration. Furthermore, despite an acknowledgement of the considerable overlap between ASC and ID (e.g. Matson and Shoemaker 2009), no study thus far has specifically explored whether there are differences in the extent to which these groups are bullied.

Nevertheless, the lower incidence of bullying in specialist settings - which pupils with ID are more likely to attend - may indicate that rates are lower, although there may be complex mediating factors involved in this.

Only one study to date has looked at the effects of cumulative risk on bullying among students with ASC. Hebron (2012) used the variables highlighted by Hebron and Humphrey (2013) to develop cumulative risk gradients as a means through which to establish whether the increase in bullying associated with exposure to multiple risks was linear or quadratic in nature. Analysis of both teacher- and parent-rated models provided evidence of the latter - with an exponential increase in bullying following exposure to c.3 risk markers.

Experiences and outcomes of bullying for children and adolescents with ASC

Our current understanding of how children and young people with ASC experience bullying has been largely informed by a handful of qualitative studies that have sought their views. In Humphrey and Lewis' (2008) phenomenological research with adolescents in mainstream secondary schools in England, the experience of bullying emerged as a central facet of the social experience of school. Young people in their sample had to 'negotiate difference' to survive in a complex and challenging social environment. On the one hand, they recognized that their ASC brought with it key strengths, but also that their inherent difficulties often left them marked out as being 'odd' or a 'freak', greatly increasing their likelihood of emerging as a target for bullies. Such was the salience of this experience, many in the sample expressed an urgent desire to be 'normal' or 'fit in' as a means to avoid being targeted in this way. This

finding resonates with those of Baines (2012), who found that young people with ASC would engage in efforts to, “distance themselves from the autistic label and ‘pass’ as normal” (p.548).

Hebron’s (2012) case studies of 5 students with ASC demonstrated that adults (e.g. parents, teachers) and children defined and understood bullying differently. Behavioural problems increased for boys in response to emotional overload, while girls experienced fewer such issues. Children’s awareness of behaviour deemed to be unacceptable or maladaptive tended to be poor, resulting in difficult and occasionally dangerous incidents. Social relationships were more positive with adults than with other children. While the children were able to form some bonds with their peers, these tended to be atypical friendships with lower degrees of reciprocity. A sense of “difference” from peers was felt by three of the older students.

We were only able to find one study to date that has attempted to explore how individuals with ASC respond to bullying. Humphrey and Symes’ (2010b) interview study found a marked disparity between those young people who would actively seek support from advocates (e.g. teachers, peers, parents) and those who would ‘go it alone’, either attempting to deal with the bullying themselves (e.g. through reactive aggression or avoidance) or simply putting up with it. The decision-making process in terms of the response pattern seemed to be largely mediated by factors such as the young people’s relationship history with potential advocates. For example, some reported that they had stopped reporting incidents of bullying to school staff because previous attempts had not led to a successful resolution of the situation.

There are natural limits on what can be said about how the experience of bullying influences concurrent and later outcomes among those with ASC because of the limited number of studies in this area. However, there are some indications, all of which make for worrying reading. Reid and Batten's (2006) survey of parents and children found that bullying of children with ASC was associated with school refusal (and/or changing/missing school), diminished social skills and relationships (consistent with Humphrey and Symes' [2011] REPIM), problems with school-work, damaged self-esteem and mental health difficulties. Support for the latter outcome can also be found in Hebron and Humphrey's (2012) study, which reported extremely high levels of anxiety and other emotional and behavioural difficulties in adolescents with ASC. Qualitative investigation in this study revealed that bullying exposure was a primary precursor to such problems. These findings are supported by Zablotsky et al.'s (2013) major US-based study, which found internalising symptoms to be an immediate consequence of exposure to bullying in a sample of over 1,000 children and young people with ASC. While such outcomes are common among victims of bullying, there is evidence to suggest that they are significantly more harmful when experienced by those with ASC. Thus, Mayes et al.'s (2013) study found rates of suicidal ideation and attempts among children with autism to be 28 times greater than for typically developing children.

Opportunities for intervention

At this point we review opportunities for intervention that are firmly rooted in evidence and theoretically consistent with the hypothesized aetiology of bullying. As bullying has complex, multi-faceted roots (Richard, Schneider, and Mallet 2012; Swearer et al. 2010), approaches to intervention should reflect this. Focusing upon a single aspect in isolation (e.g. developing social skills) is unlikely to yield successful outcomes in the long term.

Furthermore, strategies need to be integrated into existing systems and practices in schools if

they are to be sustainable, and there is a distinct need to avoid the ‘programme for every problem’ phenomenon (Domitrovich et al. 2010). Thus, interventions should be assimilated within a broader approach designed to facilitate social inclusion more generally.

A useful starting point is to build upon what is known about bullying prevention in general terms before thinking about the specific needs of those on the autism spectrum. There is certainly no shortage of evidence, and the last decade has seen the publication of a number of systematic reviews and meta-analyses (e.g. Ferguson et al. 2007; Merrell et al. 2008; Smith et al. 2004). However, despite some positive outcomes (see, for example, Ttofi and Farrington 2011), the effects of bullying interventions are not always practically significant and are more likely to influence knowledge and attitudes rather than actual behaviour (Merrell et al., 2008). Of particular note is the finding that programmes which include a component targeting students deemed to be ‘at risk’ produce slightly better outcomes (Ferguson et al. 2007). Whitted and Dupper (2005) suggest that, “the most effective approaches for preventing or minimising bullying in schools involve a comprehensive, multilevel strategy that targets bullies, victims, bystanders, families and communities” (p.169). Consistent with our theoretical orientation and the evidence presented earlier in this article, we suggest that within such approaches there is a need to consider the special case of students with ASC, or at the very least, students with disabilities more generally (Raskauskas and Modell 2011; Rose, Swearer, and Espelage 2012).

In considering the evidence covered in the first half of this article, it is worth noting some common themes, including the importance of positive relationships (e.g. Hebron and Humphrey 2013; Humphrey and Symes 2010a) and social skills (e.g. Sofronoff, Dark, and Stone 2011; Sterzing et al. 2012) as protective resources, the age-related increase in bullying

(e.g. Hebron and Humphrey 2013; Little, 2002), and the contexts in which bullying of those with ASC is most likely to occur (e.g. Hebron and Humphrey 2013; Sterzing et al. 2012). These can be used to inform and adapt approaches to intervention as a means of reducing risk and increasing protective factors. There are four key areas for action that are consistent with these findings and the general bullying prevention literature noted above: (i) students with ASC, (ii) their peers, (iii) teachers and support staff, and (iv) school culture and climate.

Children and young people with ASC

In relation to students with ASC, we propose focused interventions to develop social skills and understanding in relation to bullying. This should be tailored to the needs of the individual student, but may include content designed to develop understanding of bullying to prevent over/under reporting (Moore 2007), improve understanding of social cues in order to prevent social vulnerability (Sofronoff, Dark, and Stone 2011), identify contexts in which the child is most vulnerable to bullying and provide avoidance strategies, role play bullying situations to teach response strategies, and offer generic prevention strategies (e.g. safety in numbers – Biggs, Simpson, and Gaus 2010). There are numerous social skills interventions available, and as before meta-analyses may be helpful in determining their most effective characteristics. Bellini's (2007) analysis of school-based interventions that focused on building collateral skills, peer-mediation, and/or child-specific strategies found most to be "minimally effective" (p.153). Key issues identified in the authors' analysis included dosage (a threshold of 30 hours of instruction over 10-12 weeks), the intervention context (lower effects were found in interventions that involved children being withdrawn), matching strategies to identified skill deficits, and implementation fidelity. More recently, Wang and Spillane's (2009) meta-analysis considered interventions which included social stories, peer-mediation, video-modelling, and cognitive behavioural training. The authors determined that

with the exception of cognitive behavioural training, the evidence for each of the different modalities met the criteria for evidence-based practice identified by Horner et al. (2005).

The extant literature contains several examples of social skills interventions tailored to address the issue of bullying. Tse et al.'s (2007) Canadian study, for example, examined the effects of a 12-week group intervention that included content such as awareness and expression of feelings, recognition of non-verbal communication, negotiating with others, and responding to bullying and teasing (e.g. ignoring, stating feelings, "comebacks"). The authors found significant effects on social cognition, communication, motivation and other domains, with small-medium effect sizes. In another example, Beaumont and Sofronoff (2008) examined the effects of the Junior Detective Training Programme in Australia through a randomised controlled trial. This 7-week intervention for adolescents with ASC included a computer game designed to teach emotion recognition, regulation and social interaction, small group therapy sessions to facilitate generalisation and extension activities for teachers. Session content was directly relevant to bullying prevention, and included activities to help students differentiate friendly joking from bullying, and how to deal with bullying. Amongst the positive effects identified by the authors was a significant improvement in emotion management strategies in relation to bullying and teasing. Treatment gains were maintained at 5-month follow-up.

The peer group

Alongside such social skills training, work with the typically developing peers of children and young people with ASC is essential. A starting point is developing awareness and understanding of the differences associated with ASC. Campbell et al.'s (2004) US-based study provides useful insights. The authors examined the effects of providing descriptive and

explanatory information on 3rd-5th grade peers' attitudes and behavioural intentions towards children with ASC. Participants watched a video of a child engaging in 'autistic behaviours'. Following random assignment, half received basic descriptive information about the child, and half received both descriptive and explanatory information designed to educate and develop understanding of ASC. Participants in the latter condition demonstrated improved behavioural intentions (e.g. whether they would be likely to play with such a child) in all grades and improved attitudes in 3rd and 4th graders. The application of these findings are evident in Staniland and Byrne's (2013) recent intervention study, which tested the efficacy of a six-session autism anti-stigma programme on the knowledge, attitudes and behavioural intentions of adolescent boys in mainstream school settings. The intervention incorporated descriptive, explanatory and directive information about autism spectrum conditions. However, while it was successful in improving knowledge about and attitudes to autism at post-test and follow-up, the programme failed to impact upon behavioural intentions, reflecting Merrell et al.'s (2008) observations regarding bullying interventions more generally. Such findings suggest perhaps that earlier, more intensive and lengthy intervention is required in order to impact on behaviour in a meaningful way.

In another study, Gus's (2000) case study of a socially rejected adolescent boy with ASC demonstrated the potential effectiveness of an adapted version of the Circle of Friends approach. The intervention began with adult-supervised peer discussion of his positive attributes, alongside the things that they found difficult about him. This was followed by provision of information about autism, with links made between aspects of ASC and some of the boy's more challenging attributes. Gus (2000) reported that this simple, brief intervention had the effect of creating a more empathic response from peers that was still evident at long-term follow-up. The positive findings of this research have since received partial replication

by Kalya and Avramidis (2005), whose somewhat more rigorous study found positive changes in social initiations and responses among young children with ASC exposed to a Circle of Friends intervention.

Of course, peers can also be used as a powerful resource in interventions that focus primarily on the child with ASC. For example, Locke et al.'s (2013) study spoke of the positive effects of including typical peer models as part of a targeted social skills intervention. These authors found benefits in terms of improved social networks and friendships for both peer models and the focus children with ASC, indicating that such approaches may be mutually beneficial to those involved.

Teaching and support staff

The third essential component of bullying prevention for students with ASC is work with teachers and support staff. The words of a parent in Sciutto et al.'s (2012) qualitative study are pertinent here: "You, the teacher, can make a huge difference – positive or negative – in the way other students view a child with AS [Asperger Syndrome]... be careful not to set a tone that gives others a license to bully that child" (p.183). This view is supported by the research of Robertson, Chamberlain, and Kasari (2003), who found that the quality of teacher-student interactions influenced relationships, which in turn had a bearing on peer acceptance for students with ASC. The importance of relationships can also be seen in the general bullying literature, where evidence suggests there are fewer incidents in schools with more positive teacher-student relations (Raskauskas 2010; Richard, Schneider, and Mallet 2012).

Sciutto et al. (2012) identified a number of key teacher qualities that were perceived to have a positive impact in this regard, including tolerance, acceptance and encouragement of differences and individuality (rather than conformity), overcoming impressions and recognising that ‘the usual’ will not work (in terms of pedagogic approaches), showing empathy, respect and liking for students with ASC, and taking the time to understand individual needs. There may, however, be a need to address the values and beliefs of some staff. Kochenderfer-Ladd and Pelletier’s (2008) study of teacher beliefs about bullying identified three different groups. ‘Assertive’ group members believed that victims of bullying were continually targeted because they lack assertiveness, and that the most effective response was to encourage a victim to stand up perpetrators. Normative’ group members believed that bullying was simply a natural part of social development that all children experienced and that would not necessarily have lasting negative consequences. Finally, ‘avoidant’ group members recognised the damage that bullying could cause and felt that the most effective response was to avoid high-risk situations and contact with perpetrators wherever possible. Importantly, the beliefs of these three groups influenced the prevention strategies that they employed, with ‘avoidant’ teachers most likely to intervene when bullying occurred.

Support staff can also play an important role in preventing or reducing bullying exposure (Frisén, Hasselblad, and Holmqvist 2012). As many students with ASC are supported by a classroom/teaching assistant (or equivalent), this is our primary focus. The evidence suggests that while such staff provide critical support that can enhance the academic engagement (for example, staying ‘on-task’), the manner in which they are typically deployed (e.g., intensive, 1:1 in-class support) can inadvertently reduce opportunities for social interaction and increase social distance from peers (Symes and Humphrey 2012). Hence, there is a need to rethink

how in-class support is managed and operated. For example, a study in the UK is currently exploring how teaching assistants of students with ASC could be trained to actively facilitate, monitor and support positive peer interactions in class as part of their role (Symes, forthcoming).

Finally, Blood et al. (2013) highlight the potential contribution of external specialist staff, such as speech and language therapists/pathologists. It is important to include such individuals in planning interventions for a number of reasons. First, it ensures as comprehensive an approach as possible. Second, depending upon the staff specialism, they may have considerable experience to bring to bear (and indeed, will typically have experience drawn from a range of school contexts and so can act as a conduit for sharing good practice). Third, victims may turn to such staff for help during their time with them. Thus, they may be an, “untapped resource” (Blood et al. 2013 p. 176) who can assist in attempts to prevent bullying.

Although they are relatively scarce, there are some examples of multi-component interventions which combine elements of each of the three areas discussed above (e.g. students, peers and staff). For example, consider Etherington’s (2007) report on a locally-developed intervention in an English Local Authority (akin to a school district) produced in response to the bullying of an adolescent with ASC. This included the recruitment of up to 6 ‘peer supporters’ – including (somewhat uniquely to our knowledge) students identified as bullies. The 6-week programme incorporated direct work with the student with ASC (e.g. consultation on a plan of support, understanding of ASC) and the peer supporters (e.g. raising awareness and understanding of difference/diversity and ASC, social skills and difficulties, and identification of key strategies to support affected students). This was expanded to

provide a 6-session programme delivered by form tutors in Personal, Social and Health Education Lessons. Although the evaluation was methodologically somewhat limited, the intervention was perceived to have led to an immediate and significant reduction in bullying. Tellingly, one peer supporter was quoted as saying: “By knowing what a person’s thinking or how they react to things, it helped us realise what it’s about – how he’s a bit different to everyone else and how he might react to things” (p. 41). The view of the student with ASC was similarly positive: “I feel safe to come to school now. My supporters are there for me and I can go to them if I need help or if I need to talk about something” (p. 42).

School culture and climate

A final essential component of effective bullying prevention for students with ASC is the need to develop an appropriate school culture and climate. In the aforementioned study by Zablotzky et al. (2013), this was highlighted as a key resource that could protect children with ASC from the harmful effects of victimisation. Key pillars of this include the need to promote respect for diversity/difference in all its forms, including ASC. Indeed, in highly successful inclusive schools, a common feature is the celebration of difference (Humphrey et al. 2006). Alongside this, a zero-tolerance approach to bullying is warranted. Given their undoubted influence, staff need to model these values, including challenging stereotypes and raising expectations (Humphrey 2008). It is important to note that these are not simply aspirational words – indeed, we have been privileged to work in schools where this vision is a reality (see, for example, Morewood, Humphrey, and Symes 2011). Although much of the work in this area remains descriptive at present – and so caution in interpretation is required – there is emerging evidence of ‘autism friendly’ school environments, driven by ‘agents of change’, that are characterised by a consistent positive focus that makes use of knowledge and understanding of the needs associated with ASC. So, for example, in considering the school

environment, care is taken to ensure that physical and social aspects do not disadvantage those on the autism spectrum. In relation to the physical environment, Morewood, Humphrey, and Symes (2011) describe how the slope of a classroom ceiling caused considerable anxiety for a student with ASC. A quick change of timetabled room provision solved this problem. With regard to the social environment, providing safe and structured opportunities for students with ASC to be seen in a positive light by peers is crucial. Here, Morewood, Humphrey, and Symes (2011) offer the example of a school's Manga Club, in which pupils with autism take lead roles in supporting typical peers to develop work on projects and one-off pieces of art.

Conclusion

We have presented a 'state of the field' review of what is currently known regarding the prevalence, risk factors, experiences and outcomes, and opportunities for intervention in relation to bullying of children and young people with ASC. Drawing upon three key theoretical frames (Bronfenbrenner 2005; Humphrey and Symes 2011; Lewis and Norwich 2005), we have highlighted compelling evidence that those on the autism spectrum are considerably more likely to be bullied than those with other or no SEND (e.g. Kloosterman et al. 2013). Although prevalence estimates vary from study to study, they are always worryingly high, with the highest rate reported as 94% (Little 2002). Those most at risk of bullying include (but are not limited to) those with Asperger syndrome and/or with milder deficits in social understanding, early adolescents, those attending mainstream school, and those with concurrent behavioural difficulties (e.g. Sterzing et al. 2012), although more research is needed to explore the experiences of those with ID. The evidence suggests an exponential rise in bullying following exposure to 3 or more of such risk markers (Hebron 2012).

The elevated prevalence rate is compounded by disproportionately negative experiences and outcomes among those with ASC. Thus, children with ASC experience a ‘double disadvantage’ (higher prevalence, worse outcomes) when it comes to bullying, heightening the need for a comprehensive, evidence-informed response. However, research on such a response is in its relative infancy. Our theoretical frameworks and what evidence is currently available suggest that a multi-level, comprehensive approach to intervention that offers parallel foci on children and young people with ASC (e.g. Beaumont and Sofronoff 2008), their peers (e.g. Staniland and Byrne 2013), teaching and support staff (e.g. Symes forthcoming), and the broader school ethos and climate (Morewood, Humphrey, and Symes 2011) is warranted. A crucial component of the above is the acknowledgement of the elevated risk experienced by those with ASC and the concurrent requirement to tailor interventions to their specific needs.

In light of the above, future research which examines the efficacy of comprehensive, multi-level approaches to prevent and reduce bullying of students with ASC in different educational contexts is urgently needed. In addition to the rationale presented in the current article in terms of prevalence, risk and outcomes, there is a convincing economic and social argument. Efficacious bullying prevention strategies could feasibly reduce the need for referrals to mental health services for those with ASC, both during childhood and into adulthood. Thus, aside from the obvious benefits of reduced suffering, there is a clear ‘invest to save’ argument, especially given the high economic cost of autism (Knapp, Romeo, and Beecham 2009). Moreover, as noted at the beginning of this article, bullying of students with autism gives us a clear case study of the continuing inequities that exist in our school systems. Thus,

a clear mandate to tackle this problem will serve the broader goals of the inclusive education movement.

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