

Inclusive education for pupils with autistic spectrum disorders in secondary mainstream schools: teacher attitudes, experience and knowledge

Cite as: Humphrey, N. & Symes, W. (under review). Inclusive education for pupils with autistic spectrum disorders in secondary mainstream schools: teacher attitudes, experience and knowledge. *International Journal of Inclusive Education*.

Neil Humphrey and Wendy Symes

School of Education

University of Manchester

Oxford Road

Manchester

M13 9PL

Email: neil.humphrey@manchester.ac.uk

Tel: 0161 275 3404

Fax: 0161 275 3548

Abstract

The aim of the current study was to examine the experience, attitudes and knowledge of school staff in relation to inclusive education for pupils with ASDs in secondary mainstream schools. 53 participants from 11 secondary schools in the north-west of England completed a survey that covered socio-demographic information and teaching experience, perceptions of inclusion within their school, experience and knowledge of ASDs, influences on integration of pupils with ASDs, ability to cope with behaviours associated with ASDs, and benefits and problems associated with integration of pupils with ASD in mainstream schools. We found more positive responses than have been reported in previous studies, indicating that attitudes towards inclusion of this particular group of learners may be changing over time. Our analysis also showed that senior managers and SENCOs reported greater self-efficacy in teaching pupils with ASD and in coping with behaviours associated with ASD than did subject teachers. Finally, respondents reported social inclusion as both a potential benefit and challenge for pupils with ASD. The implications of these findings for future training and practice are discussed.

Keywords: autistic spectrum disorders; inclusive education; teacher attitudes

Introduction

Children and young people with autistic spectrum disorders (ASDs) experience difficulties in communication, interaction and imagination (Wing, 2007). In line with educational policy both in England and internationally (e.g. Department for Education and Employment, 1997; United Nations Educational, 1994), increasing numbers of such pupils are being educated in mainstream settings (Dybvik, 2004; Keen & Ward, 2004). However, schools have struggled to keep pace with these developments. Indeed, Humphrey and Lewis (2008) describe this as one of the most complex and poorly understood areas of education. Pupils with ASDs are viewed as more difficult to effectively include than pupils with other special educational needs (SEN) (House of Commons Education and Skills Committee, 2006) and research indicates that they are more likely to be excluded from school than most other groups of learners (Barnard, Prior, & Potter, 2000; Department for Education and Skills, 2006; National Autistic Society, 2003).

Teachers play a key role in the successful inclusion of pupils with ASDs (Burack, Root, & Zigler, 1997; Emam & Farrell, 2009; McGregor & Campbell, 2001). However, whilst all pupils may benefit academically and socially from positive relationships with their teachers (Robertson, Chamberlain, & Kasari, 2003) those with ASDs can present a challenge in this regard. Teachers of pupils with ASDs report tensions when dealing with the difficulties these pupils have in social and emotional understanding, and these tensions can determine the quality of

teacher-pupil interactions (Emam & Farrell, 2009). The disinterest in interaction and behavioural problems sometimes displayed by learners with ASDs can make it less likely for teachers to report having a positive relationship with them (Robertson, Chamberlain, & Kasari, 2003). Natof and Romanczyk (2009) warn against generalising from what is appropriate for typically developing pupils to those with ASDs. They argue, for example, that certain aspects of the pupil-teacher relationship may not be relevant to this group of learners. Indeed, these authors found that the level of teacher attention received had almost no impact on the academic performance of pupils with ASDs.

Even if the pupil-teacher relationship does not have an impact on the academic inclusion of pupils with ASDs, it has been found to determine the degree to which they are socially included. Robertson, Chamberlain & Kasari (2003) found that the more negative relationship teachers had with such pupils, the less socially accepted they were by their peers. This is particularly worrying as the difficulties in social interaction experienced by pupils with ASDs already put them at risk of negative social outcomes. They are up to three times more likely to be bullied, are less likely to receive social support and are more likely to be rejected than their peers (Symes & Humphrey, 2010). Pupils with ASD are also more likely to spend more of their break and lunchtimes alone, and engage less in co-operative interaction with other children than those with other or no SEN (Humphrey & Symes, under review).

A way to minimise these negative social outcomes then, might be to ensure teachers have appropriate training to successfully include pupils with ASDs within their classrooms (McGregor & Campbell, 2001; Rose, 2001; Simpson, de Boer-Ott, & Smith-Myles, 2003). Parents of pupils with ASD identify teacher training as the single most enabling factor in providing for their children in the mainstream setting (Jindal-Snape, Douglas, Topping, Kerr, & Smith, 2005). Similarly, Jordan & Jones(1997) claim that staff training should be a key part of this provision if schools are to meet the needs of pupils with ASD and policies should be in place to ensure it is received (Centre for Studies on Inclusive Education, 2002).

It is proposed that teaching pupils with ASDs may require specific approaches that are not familiar to mainstream teachers (Leach & Duffy, 2009). However, whilst teachers believe that learning these skills would make a positive difference to their classroom practice (Lian et al., 2008) many currently lack the training to adequately support such pupils (Dybvik, 2004; McGregor & Campbell, 2001; Robertson, Chamberlain, & Kasari, 2003) and feel unable to meet their needs (Sinzc, 2004). Indeed, teaching practices and strategies for pupils with ASDs have been identified as a key 'gap' in the knowledge base for SEN provision (Humphrey & Parkinson, 2006). Furthermore, which strategies are used can vary with the age of the pupil, the classroom setting and the pupil being included (Hess, Morrier, Heflin, & Ivey, 2008). Therefore it is important to provide teachers with as many strategies as possible. Teacher training not only ensures that pupils

are more included in lessons, it can also make teachers feel more confident in dealing with pupils with ASD (Glashan, Mackay, & Grieve, 2004), whilst a lack of training has been linked to heightened teacher anxiety (Sinz, 2004). Evaluation of teacher training programmes for teachers working with pupils with ASDs have found that training can result in increased awareness of ASDs (Leblanc, Richardson, & Burns, 2009) alongside a significant improvement in the classroom behaviour of pupils with ASD and reduced teacher stress (Probst & Leppert, 2008). In terms of SEN more generally, training can also result in teachers having a more positive attitude towards inclusion (Avramidis, Bayliss, & Burden, 2000; Horrocks, White, & Roberts, 2008; Huang & Wheeler, 2007). This is important as positive attitudes toward inclusion are cited as a second important prerequisite to successful inclusion of pupils with ASDs (McGregor & Campbell, 2001). Direct experience of inclusion can also raise positive attitudes (Avramidis, Bayliss, & Burden, 2000), particularly with pupils with ASDs (McGregor & Campbell, 2001). However, many teachers still feel that additional support from a teaching assistant (TA) is important (Rose, 2001), not only for the pupil with ASD, but for their peers as well (Sincz 2004).

However, whilst teacher training and attitude towards inclusion are important, it is also vital to consider the wider-school context. Indeed, there is a call to move away from focusing upon pupil deficits towards a whole-school approach of reviewing practices and learning styles (Rose, 2001). Similarly, research stresses the importance of a whole-school approach to inclusion (Centre for

Studies on Inclusive Education, 2002). In relation to including pupils with ASDs it is argued that positive outcomes cannot be achieved by just a few members of staff, rather: “Schools need to buy in wholesale to inclusion if it is to work. Inclusion cannot rely on the interest, commitment and enthusiasm of one or two individuals. Without a shift in the whole organisation’s attitude and approach it will fail children with autism and Asperger syndrome” (Barnard, Prior, & Potter, 2000, p. 12). This whole-school inclusion requires all staff to have a clear and shared understanding of the aims and expectation of inclusion within their school (Eldara, Talmora, & Wolf-Zukermana, 2010; Huang & Wheeler, 2007), and these must be supported by senior management (Horrocks, White, & Roberts, 2008).

The current study: a rationale

Inclusive education for pupils with ASD is one of the most complex and poorly understood areas of education (Humphrey & Lewis, 2008). In particular, there have been calls for further research into effective teaching strategies and approaches for this group of learners (Humphrey & Parkinson, 2006). However, the practice of inclusion is not simply about the application of particular pedagogical methods – it is underpinned by staff attitudes, knowledge and experience. This is a particularly important consideration in relation to pupils with ASD, who are considered amongst the most difficult to effectively ‘include’ in mainstream settings (House of Commons Education and Skills Committee, 2006). However, with the exception of a small handful of papers (e.g. McGregor

& Campbell, 2001), this aspect of inclusion remains somewhat underexplored in ASD research. In light of this, the aim of the current study was to examine the attitudes, experience and knowledge of school staff in relation to inclusive education for pupils with ASDs in secondary mainstream schools. Specifically, we were interested in:

- (i) staff perceptions of overall levels of inclusion within their schools,
- (ii) their experience and knowledge of working with pupils with ASDs,
- (iii) perceived ability to cope with key behaviours associated with ASDs,
- (iv) their beliefs about different influences on integration of pupils with ASD,
- (v) the relationship between (i), (iii) and (iv), and
- (vi) any differences between school senior managers (including special educational needs co-ordinators – SENCOs) and subject teachers in relation to the above

Although the study was primarily designed to add to the knowledge base in this rather impoverished area of research, we were also mindful of the potential practical applications of our findings. Identifying behaviours that teachers find difficult to cope with, for example, can help focus teacher training. This is important as teachers feel they benefit most from training about specific strategies to deal with specific behaviours (Marks et al., 2003). Thus, addressing the aims and objectives outlined above could add to both theoretical and practical knowledge about inclusive education for pupils with ASD.

All of the data reported in this article were collected during the execution of a larger project on inclusive education for pupils with ASD funded by the Economic and Social Research Council (grant reference RES-061-25-0054).

Method

Design

The study utilised a cross-sectional survey design, incorporating both open and closed response formats.

Participants

53 participants (21 male, 32 female) from 11 mainstream secondary schools across the North-West of England took part in the study. 11 of the questionnaires were completed by members of senior management, 10 by SENCOS and 32 by English, maths or science teachers¹. Of them, 8 teachers were under 30 years old, 19 were between 31-40 years old, 10 were between 41-50 years old and the remaining 16 were over 50.

Materials

All participants completed a 58 item questionnaire (see Appendix 1), which covered: (i) socio-demographic information and teaching experience [5 items], (ii) perceptions of inclusion within their school [28 items], (iii) experience and knowledge of ASDs [4 items], (iv) influence on integration of pupils with ASDs [7 items], (v) ability to cope with behaviours associated with ASDs [10 items], and (vi) benefits and problems associated with integration of pupils with ASD in mainstream schools. With the exception of section (ii), which was drawn from

¹ In the interests of brevity and to increase the statistical power of our analysis, the SENCO responses were combined with those of the senior management into one group (SM) to allow comparison with subject teachers (ST).

the Manchester Inclusion Standard (Fox & Messiou, 2004), items in the survey were adapted from McGregor and Campbell's (2001) study.

One key adaptation of note relates to section (v). After consultation with the project steering group of the wider study (which comprised a SENCO, an Educational Psychologist, a Professor of SEN and a representative from the National Autistic Society), it was decided that the 10 behaviours originally listed by McGregor and Campbell (2001) were not representative of pupils with ASD in contemporary mainstream secondary school settings², so all but one of the original items ('high-levels of anxiety') were replaced with new items developed by the group.

Procedure

The SENCO at each school completed a questionnaire, and was asked to choose an English, maths and science teacher, and a member of senior management to also fill one in. Respondents were asked to complete the questionnaires independently and return it to the researchers in the envelope provided.

Ethical considerations

Informed consent was sought at two levels (school leadership and participant), and all other standard ethical considerations in educational and psychological

² The original survey was designed for use with teachers in specialist as well as mainstream settings, making some of the items in this section inappropriate and/or invalid.

research (e.g. anonymity and right to withdraw) (British Educational Research Association, 2004; British Psychological Society, 2004) were followed. Respondents were asked to complete the questionnaire at a time convenient to them to minimise any disruption to their working day.

Results

Quantitative data

Perceptions of inclusion within school

The items in this section utilized a Likert 1-4 scale response format, and were combined to produce a total 'school inclusion' score with a possible range of 28-112 (with higher scores indicating higher levels of inclusion). The mean school inclusion score for the overall sample was 86.1, indicating a relatively high degree of inclusion. The mean inclusion score for the SM group was 88.9 and for the ST group was 84.3 – although this difference was not statistically significant ($p > .05$).

Experience and knowledge of ASD

Items in this section followed a binary forced choice (e.g. yes/no) response format. Overall, 38 respondents felt they had the skills to teach a child with an ASD, whilst 14 did not. 19 (90.5%) in the SM group felt they had the skills to teach a child with an ASD, whilst 2 (9.5%) did not. 19 (61.3%) teachers felt they had the skills to teach a child with an ASD, and 12 (38.7%) did not. A Chi-Square test revealed that this difference between groups was statistically significant [$\chi^2 (1) = 5.420, p < .05$], indicating that senior managers and SENCOs

were more likely to feel they had the skills to teach a child with an ASD than subject teachers.

50 of the respondents had experience of teaching a child with an ASD, whilst 3 did not. 1 (4.8%) of the SM group had never taught a child with an ASD, whilst the remaining 20 (95.2%) had. 2 (6.3%) in the ST group had never taught a child with an ASD, but 30 (93.8%) had. A Chi-Square test revealed that there was no significant difference in the experience of the two groups ($p > .05$).

Overall, 46 (86.8%) of respondents felt they would be likely or very likely to attend training about ASD if it was available. The SM group were slightly more likely to attend, with 90% saying they would be likely or very likely to attend, compared with 81% of the ST group, but this difference was not statistically significant ($p > .05$).

Respondents were asked to rank the ASD 'triad of impairments' (socialisation, communication and imagination) in the order they anticipated would cause the most difficulties for their practice. Based on these rankings, a score for each impairment was generated to indicate which was viewed as the most problematic. Overall, communication was found to be the most problematic impairment, whilst imagination was considered to be the least problematic. The same results were obtained when exploring the SM and ST responses separately.

Ability to cope with behaviours associated with ASD

The items in this section utilized a Likert 1-5 scale response format, and were combined to create a total 'coping' score, ranging from 10 to 50 (with higher scores indicating greater difficulty in coping). The overall mean score for the 10 items regarding the ability to cope with behaviours displayed by pupils with ASD was 22.3 (SD = 5.79), suggesting that overall respondents felt they could cope with the behaviours (this mean relates to an item average of 2.23 on a range of 1-5). The SM scored a mean overall score of 20.1 (SD = 5.92), whilst the ST mean score was 23.7 (SD = 5.32). This difference was statistically significant [$t(50) = -2.317, p < .05$], indicating that senior managers and SENCOs found it easier to cope with behaviours associated with ASD than subject teachers.

The overall, SM and teacher mean scores for each item are displayed in the graph below:

Figure 1. Respondents' ability to cope with behaviours associated with ASD.

<< Figure 1 here >>

Overall, respondents found 'displaying inappropriate emotions' the most difficult behaviour to cope with, whilst 'need for routine' was seen as the easiest. Both groups of respondents found the 'displaying inappropriate emotions' behaviour the most difficult to cope with. SM found 'lack of eye contact' the easiest behaviour to cope with, whilst ST found the 'need for rigid routine' easiest. The SM consistently found the listed behaviours easier to cope with than the teachers did. A series of t-test showed that these differences were significant for 'rigid/literal thinking' [$t(50) = -2.369, p < .05$], 'lack of social understanding' [$t(50) = -2.186, p < .05$], 'lack of eye contact' [$t(50) = -2.325, p < .05$] and 'poor turn taking skills' [$t(50) = -2.549, p < .05$].

Influences on integration of pupils with ASDs

The items in this section utilized a Likert 1-5 scale response format, and were combined to create a total 'influences on integration' score ranging from 7 to 35 (following Low's (2007) taxonomy, lower scores were interpreted as representing more 'moderate' views on integration, and higher scores as representing more 'universalist' views³). The overall mean score for 'influence on integration' items was 19.7 (SD = 4.36), indicating a mixed-to-moderate viewpoint. The overall mean score for the SM group was 20.1 (SD = 5.24) and for the ST group it was 19.5 (SD = 3.75). This marginal difference was not statistically significant [$t(51) =$

³ The moderate view of inclusion suggests that integration depends upon a range of factors and is not appropriate for all children; the universalist view suggests that there should be no such 'conditions' placed upon a child's right to be educated in his/her local mainstream school.

.546, $p > .05$]. The overall, SM and ST mean responses to each item are displayed in the graph below:

Figure 2. Teachers' views of influences on integration of pupils with ASD.

<< figure 2 here >>

In general, SM had higher item scores (indicating more universalist views) than ST. However, a series of t-tests revealed that there were no significant differences between the SM and ST mean scores for these items (all $p > .05$), suggesting that senior managers/SENCOs and subject teachers have similar attitudes towards the successful integration of children with ASDs.

Relationship between perceptions of inclusion within school, ability to cope with ASD behaviours and influences on integration of pupils with ASD

The relationship between total scores for these three sections of the questionnaire were examined using a Pearson's correlation. The total coping score was positively correlated with total influences on integration score, and negatively correlated with the total school inclusion score, but these relationships were not statistically significant ($p > .05$). The total school inclusion score was negatively correlated with total successful integration score, and this correlation was statistically significant ($r = -.272$, $p < 0.5$). This indicates that participants with

more moderate views on integration were more likely to feel that there were high levels of inclusion within their school.

Qualitative data

Due to overlap in responses, the qualitative responses from SM and ST are presented together.

What benefits do you think a child with ASD may gain if integrated into a mainstream school?

Respondents overwhelmingly cited social inclusion, including developing social skills, learning to interact with peers and making friends, as the key benefits to a child with ASD integrated into mainstream school (n=23, e.g. *'they would be able to develop appropriate social skills'*). Developing coping strategies that can be used in wider society (n=6, e.g. *'preparation for life...experience of practicing coping skills'*) was also seen as a benefit, as was access to a range of subjects (n=6, e.g. *'a greater range of subjects'*). Other benefits included avoiding stigma associated with attending a special school (n=3, e.g. *'less stigma within home and community'*) and learning to accept pupils who are different from themselves (n=3, e.g. *'gives them a better understanding of pupils without ASD'*).

What problems do you think a child with ASD may encounter if integrated into a mainstream school?

In contrast to responses to the question above, social inclusion was identified as a *problem* pupils with ASD would encounter; this included bullying, isolation and difficulty making friends (n=24, e.g. *'isolation, especially at social times'*). Lack of awareness from peers (n=10, e.g. *'encountering other students who don't understand ASD and problems associated with this'*) and staff (n=9, e.g. *'staff not understanding needs'*) were also cited as problems pupils with ASDs might encounter. Stress was seen as another problem (n=7, e.g. *'may feel overwhelmed'*), as was difficulty coping with changes in routine (n=6, e.g. *'struggle to cope with changing routines'*).

What benefits do you think a pupil in mainstream schools may gain when a child with ASD is integrated into mainstream school?

Respondents felt that the key benefits mainstream pupils would gain from a child with ASD integrated into mainstream was increased understanding and tolerance of people different to themselves (n= 25, e.g. *'understanding that people are individuals, everyone is different and that all should be valued'*), and the chance to experience a wider society (n=6, e.g. *'experience of more society, not just 'mainstream' or 'normal' ability pupils'*). It would also lead to an increased understanding of ASD (n=6, e.g. *'a greater understanding of children with ASDs'*)

and help them develop social skills to interact with people different from themselves (n=2, e.g. *'learn to interact with peers who think or react differently'*).

What problems do you think pupils in mainstream schools may encounter when a child with ASDs is integrated into mainstream school?

The major problem peers may experience were identified as frustration and difficulty accepting why a pupil with ASD is treated differently, such as why certain behaviours go unpunished (n=15, e.g. *'difficulties understanding why different rules and expectations apply. This could be seen as unfair'*). It was also felt that a number of pupils may feel uncomfortable when confronted by inappropriate and aggressive behaviour from a pupil with ASD (n=10, e.g. *'some children may feel uncomfortable when faced with aggressive behaviour'*). There were concerns that pupils with ASD may disrupt the learning of mainstream peers (n=7, e.g. *'possibility of disturbance within lessons if regimes are not kept'*), and that pupils may experience difficulties trying to understand the behaviour of pupils with ASD (n=5, e.g. *'they may struggle to understand why the ASD child behaves in a certain way'*). Finally, respondents felt that if appropriate support was not available in the classroom, the presence of a pupil with ASD might result in reduced attention from the teacher for the other pupils (n=3, e.g. *'if proper support isn't available, pupils may have a lack of attention directed towards them...they need a lot of person power'*).

Discussion

Our survey revealed several interesting patterns and trends which may prove useful in thinking about future teacher training needs and issues around inclusive education for students with ASD more generally. We begin this discussion section with a brief overview of our main findings. Firstly, respondents reported relatively high levels of inclusion within their schools – this gives a clear indication that they felt they were operating in an environment that should be conducive to the integration of learners with ASD. However, subject teachers reported significantly lower self-efficacy in relation to having the skills necessary to teach such students than did senior managers and SENCOs. This difference did not appear to be related to having had direct experience of teaching students with ASD though, with over 90% of both groups having taught at least one such student. On the whole, around 4 in every 5 respondents reported that they would attend further training on ASD if this were made available – indicating a strong willingness to develop their knowledge and expertise. In terms of ability to cope with certain behaviours associated with ASD, the sample as a whole responded positively, but subject teachers reported significantly lower coping than senior managers and SENCOs. More specifically, they felt less able to cope with students' rigid and/or literal thinking, lack of social understanding, lack of eye contact, and poor turn-taking skills. Taking the sample as a whole, the behaviours that were viewed as the most problematic were inappropriate emotional displays, heightened anxiety, and poor turn-taking skills. With regard

to influences on integration, the sample presented a mixed-to-moderate viewpoint, and this was directly related to their views of inclusion within their school, with more moderate views being associated with more positive views of school inclusion. Finally, respondents reported a range of potential benefits and challenge of inclusion for both students with ASD and their peers. Perhaps most significantly, social inclusion was seen as both a potential benefit *and* a potential problem.

The finding that on average respondents felt able to cope with behaviours associated with ASD is contrary to much of the previous literature in this area (e.g. Dybvik, 2004; Sinz, 2004). This could perhaps be due to the fact that nearly all of them had experience of working with pupils with ASDs, which previous studies have linked to more confidence in the classroom (Glashan, Mackay, & Grieve, 2004; McGregor & Campbell, 2001). However, another explanation for the findings might be that the list of 'ASD behaviours' did not include behaviours with which respondents did have difficulty coping. It may have perhaps been advantageous to have allowed space for participants to generate their own behaviours. These findings may also have arisen as a result of the sampling criteria - SENCOs were asked to select participants to complete the questionnaire and it is possible those members of senior management or teachers who were regarded as better able to cope with pupils with ASDs were selected. Random selection of participants may have been more appropriate, but this is not always feasible in relatively small-scale educational research.

Differences in which behaviours the SENCOs/SM and teachers found easier or more difficult to cope with suggests that training may need to be differentiated for different school personnel. This concurs with findings from (Hess, Morrier, Heflin, & Ivey, 2008), who found that strategies for working with pupils with ASDs can vary within the same educational setting. However, the finding that 'displaying inappropriate emotions' was found as the most difficult behaviour to cope with by both groups suggests that this is an area where training could be usefully targeted. Training is not only important to help teachers cope with this behaviour, but also because previous research has suggested that problems dealing with challenging behaviour can lead to less positive teacher-pupils relationships – this in turn can result in pupils being more likely to be socially excluded by their peers (Robertson, Chamberlain, & Kasari, 2003).

SENCOs/SM demonstrated greater levels of self-efficacy in teaching pupils with ASD and also reported higher coping levels in relation to 'ASD behaviours' than did teachers. This may suggest that knowledge, expertise and strategies of SENCOs/SM are not being filtered through to subject teachers. This is particularly concerning given that a key part of the SENCOs role is providing professional guidance to those working with pupils with SEN (Abbott, 2007). Findings from McCabe (2008) offer a possible explanation for this difference in coping skills. They found that the effectiveness of teacher training was facilitated by positive relationships between senior and newer members of staff. Schools

may therefore need to build on these relationships to ensure knowledge and strategies for effective teaching of pupils with ASDs are passed on.

SENCOs/SM were more likely to agree that pupils with ASD should be integrated into mainstream schools where possible than teachers (see Figure 2). This could be because they felt they had the skills to teach and cope with a pupil with ASD, echoing findings from other studies (e.g. Avramidis, Bayliss, & Burden, 2000; Horrocks, White, & Roberts, 2008; Huang & Wheeler, 2007). This notion is supported by the finding (in preliminary analyses – not reported in this article) that ‘ASD behaviour’ scores could account for some of the variance in the level of agreement with the statement. It is also perhaps an unsurprising finding given the SENCOs responsibility to promote inclusion of all pupils within their school (Abbott, 2007).

Teachers felt that the severity of a pupils ASD was an important factor in the successful integration of pupils with ASD, more so than SENCOs/SM (see Figure 2). This may again be a result of the fact that SENCOs/SM felt better able to cope with pupils with ASDs. Teachers regarded teaching assistants (TAs) as crucial to the successful inclusion of pupils with ASDs, and this resonates with previous research (Rose, 2001). Alston & Kilham (2004), for example, found that teachers felt TAs as ensured consistency for pupils with ASD across different lessons and teachers. The finding that SENCOs/SM do not feel that TAs are so important is concerning as they are responsible for the recruitment and

deployment of TAs – it is possible that teachers are not getting the support they need as senior staff do not see the importance of TA provision.

Social inclusion was seen as both a benefit and a challenge for pupils with ASD included in mainstream schools, mirroring current discourse. Advocates of inclusion argue that it provides pupils with ASDs the opportunities to develop their social skills through interaction with non-disabled peers (Kasari & Rotheram-Fuller, 2007). Peer relationships are coming to be regarded as a key part of the inclusion of pupils with ASDs, exemplified by Ochs, Kremer-Sadlick, Solomon & Sirota (2001) who argued that, *'the practice of inclusion rests primarily on unaffected schoolmates rather than teachers'* (p.399). At present, however, research suggests that the social outcomes of pupils with ASDs in mainstream schools can be very negative. They are, for example, up to three times more likely to be bullied and report receiving less social support than pupils with other or no SEN (Humphrey & Symes, 2010). A possible explanation for these negative social outcomes may come from the concerns raised by some participants in this study - that students without difficulties can become frustrated by, and not understand the differential treatment of pupils with ASDs. Substantiating this proposition, Hemmingsson, Borell & Gustavsson (2003) found that peers were likely to be jealous of, and to social exclude pupils, with physical disabilities if they felt they were being treated differently. In these cases, TAs could minimise this negative impact, by including other peers in the differentiated

activities. This again gives further sway to the argument that TAs may be crucial to the successful inclusion of pupils with ASDs.

Conclusion

The aim of the current study was to examine the attitudes, experience and knowledge of school staff in relation to inclusive education for pupils with ASDs in secondary mainstream schools. At a general level, we found more positive responses than have been reported in previous studies, indicating that attitudes towards inclusion of this particular group of learners may be changing over time (for instance, the research by McGregor and Campbell (2001), upon which much of our survey was based, was conducted a decade ago). We also found that senior managers and SENCOs reported greater self-efficacy in teaching pupils with ASD and in coping with behaviours associated with ASD. Both groups reported inappropriate emotional displays as the most problematic behaviour to deal with in school – which of course has implications for future staff training needs. Finally, respondents reported social inclusion as both a potential benefit and challenge for pupils with ASD. This suggests a more complex route to effective inclusion than either the universalist (e.g. Ainscow, 2007) or moderate (e.g. Low, 2007) writers currently suggest.

References

- Abbott, L. (2007). Northern Ireland Special Educational Needs Coordinators creating inclusive environments: an epic struggle. *European Journal of Special Needs Education* 22 (4), 391 - 407.
- Alston, J., & Kilham, C. (2004). Adaptive education for students with special needs in the inclusive classroom. *Australian Journal of Early Childhood* 29 (3), 24-33.
- Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school in one Local Education Authority. *Educational Psychology: An International Journal of Experimental Educational Psychology* 20 (2), 191 - 211.
- Barnard, J., Prior, A., & Potter, D. (2000). *Autism and Inclusion: Is it working?* London: National Autistic Society.
- British Educational Research Association. (2004). *Revised Ethical Guidelines for Educational Research*. Southwell, Notts: BERA.
- British Psychological Society. (2004). *Code of Conduct, Ethical Principles and Guidelines*. Leicester: BPS.
- Burack, J., Root, R., & Zigler, E. (1997). Inclusive education for students with autism: reviewing ideological, empirical and community considerations. . In D. E. Cohen & F. Volkmar (Eds.), *Handbook of Autism and Developmental Disorders*. Chichester: Wiley.
- Centre for Studies on Inclusive Education. (2002). Index for Inclusion: developing learning and participation in schools. Retrieved 11th June, 2010, from <http://www.csie.org.uk/publications/inclusion-index-explained.shtml>
- Department for Education and Employment. (1997). *Excellence for all children: meeting special educational needs*. Nottingham: DfEE.
- Department for Education and Skills. (2006). *Permanent and fixed period exclusions from schools and exclusions appeals in England 2004/05*. Nottingham: DfES Publications.
- Dybvik, A. C. (2004). Autism and the Inclusion Mandate: what happens when children with severe disabilities like autism are taught in regular classrooms? Daniel knows. *Education Next* 4 (1), 43-51.
- Eldara, E., Talmora, R., & Wolf-Zukerman, T. (2010). Successes and difficulties in the individual inclusion of children with Autism Spectrum Disorder (ASD) in the eyes of their coordinators. *International Journal of Inclusive Education* 14 (1), 97-114.
- Emam, M. M., & Farrell, P. (2009). Tensions experienced by teachers and their views of support for pupils with autism spectrum disorders in mainstream schools. *European Journal of Special Needs Education* 24 (4), 407-422.
- Glashan, L., Mackay, G., & Grieve, A. (2004). Teachers' experience of support in the mainstream education of pupils with autism. *Improving Schools* 7 (1), 49-60.
- Hemmingsson, H., Borell, L., & Gustavsson, A. (2003). Participation in School: School Assistants Creating Opportunities and Obstacles for Pupils with Disabilities. *Occupation, Participation and Health* 23 (3), 88-98.

- Hess, K., Morrier, M., Heflin, L., & Ivey, M. (2008). Autism Treatment Survey: Services Received by Children with Autism Spectrum Disorders in Public School Classrooms. *Journal of Autism and Developmental Disorders* 38 (5), 961-971.
- Horrocks, J. L., White, G., & Roberts, L. (2008). Principals' attitudes regarding inclusion of children with autism in Pennsylvania public schools. *Journal of Autism and Developmental Disorders* 38, 1462-1473.
- House of Commons Education and Skills Committee. (2006). *Special Educational Needs: Third Report of Session 2005-06*. London: The Stationary Office Limited.
- Huang, A. X., & Wheeler, J. J. (2007). Including children with autism in general education in China. *Childhood Education* 83, 356-359.
- Humphrey, N., & Lewis, S. (2008). 'Make me normal': the views and experiences of pupils on the autistic spectrum in mainstream secondary schools. *Autism: An International Journal of Research and Practice* 12 (1), 23-47.
- Humphrey, N., & Parkinson, G. (2006). Research on interventions for children and young people on the autistic spectrum: a critical perspective. *Journal of Research in Special Educational Needs* 6 (2), 76-86.
- Humphrey, N., & Symes, W. (2010). Perceptions of social support and experience of bullying among pupils with autistic spectrum disorders in mainstream secondary schools. *European Journal of Special Needs Education* 25 (1), 77 - 91.
- Humphrey, N., & Symes, W. (under review). Peer interaction patterns among adolescents with autistic spectrum disorders (ASDs) in mainstream secondary schools. *Autism: An International Journal of Research and Practice*.
- Jindal-Snape, D., Douglas, W., Topping, K. J., Kerr, C., & Smith, E. F. (2005). Effective education for children with autistic spectrum disorder: Perceptions of parents and professionals. *International Journal of Special Education* 20 (1), 77-87.
- Jordan, R., & Jones, G. (1997). *Educational provision for children with autism in Scotland. Interchange No. 46*. Edinburgh: Scottish Office Education and Industry Department.
- Kasari, C., & Rotheram-Fuller, E. (2007). Peer relationships of children with autism. In E. Hollander & E. Anagnostou (Eds.), *Clinical Manual for the Treatment of Autism*: American Psychiatric Publishing Inc.
- Keen, D., & Ward, S. (2004). Autistic spectrum disorder: a child population profile. *Autism* 8 (1), 39-48.
- Leach, D., & Duffy, M. L. (2009). Supporting students With autism spectrum disorders in inclusive settings. *Intervention in School and Clinic* 45 (1), 31-37.
- Leblanc, L., Richardson, W., & Burns, K. A. (2009). Autism Spectrum Disorder and the Inclusive Classroom. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 166-179.
- Lian, W. B., Ying, S. H. K., Tean, S. C. H., Lin, D. C. K., Lian, Y. C., & Yun, H. L. (2008). Pre-school teachers' knowledge, attitudes and practices on childhood developmental and behavioural disorders in Singapore. *Journal of Paediatrics and Child Health* 44 (4), 187-194.
- Marks, S. U., Shaw-Hegwer, J., Schrader, C., Longaker, T., Peters, I., Powers, F., & Levine, M. (2003). Instructional management tips for teachers of students with Autism Spectrum Disorder. *Teaching Exceptional Children* 35 (4), 50-55.

- McCabe, H. (2008). Effective Teacher Training at the Autism Institute in the People's Republic of China. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 103-117.
- McGregor, E., & Campbell, E. (2001). The attitudes of teachers in Scotland to the integration of children with autism into mainstream schools. *Autism* 5 (2), 189-208.
- National Autistic Society. (2003). *Autism and education: the ongoing battle*. London: NAS.
- Natof, T. H., & Romanczyk, R. G. (2009). Teaching students with ASD: Does teacher enthusiasm make a difference? *Behavioral Interventions* 24 (1), 55-72.
- Ochs, E., Kremer-Sadlik, T., Solomon, O., & Sirota, K. G. (2001). Inclusion as social practice: Views of children with autism. *Social Development* 10 (3), 399-419.
- Probst, P., & Leppert, T. (2008). Brief Report: Outcomes of a Teacher Training Program for Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders* 38 (9), 1791-1796.
- Robertson, K., Chamberlain, B., & Kasari, C. (2003). General education teachers' relationships with included students with autism. *Journal of Autism and Developmental Disorders* 33 (2), 123-130.
- Rose, R. (2001). Primary school teacher perceptions of the conditions required to include pupils with special educational needs. *Educational Review* 53 (2), 147 - 156.
- Simpson, R. L., de Boer-Ott, S. R., & Smith-Myles, B. (2003). Inclusion of learners with autism spectrum disorders in general education settings. *Topics in Language Disorders* 23 (2), 116-133.
- Sinz, C. T. (2004). *Viewpoints and attitudes of teachers (K-5) who have students with Asperger's disorder*. University of Wisconsin Stout, Menomonie.
- Symes, W., & Humphrey, N. (2010). Peer-group indicators of social inclusion among pupils with autistic spectrum disorders (ASD) in mainstream secondary schools: a comparative study. *School Psychology International* 30 (4).
- United Nations Educational, Scientific and Cultural Organisation. (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. Spain: Ministry of Education and Science.
- Wing, L. (2007). Children with autistic spectrum disorders. In R. Cigman (Ed.), *Included of Excluded? The Challenge of Mainstream For Some SEN Children* (pp. 23-33). London: Routledge.