The relationship between speech, language and communication needs (SLCN) and behavioural, emotional and social difficulties (BESD)

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EXECUTIVE SUMMARY

The Better Communication Research Programme (BCRP) was commissioned as part of the Better Communication Action Plan[1], the government's response to the Bercow review of services for children and young people with speech, language and communication needs (SLCN). This had recommended a programme of research 'to enhance the evidence base and inform delivery of better outcomes for children and young people' (p.50)[2]. This is one of four thematic reports which synthesize the findings from the 10 technical reports that report the results from individual BCRP projects; there are also two interim reports and a report of the BCRP as a whole (see Appendix 1 for full details).

Previous research has suggested that pupils with SLCN and those with autism spectrum disorders (ASD) are at greater risk of developing behavioural, emotional and social difficulties (BESD) than typically developing children and young people. However, recent research has indicated that it is important to distinguish different types of speech, language and communication difficulties and also different domains of the generic category BESD. Both policy and practice require a careful analysis of these relationships in order that provision is appropriate to meet individuals' needs and that the provision is made effectively and cost effectively.

This thematic report draws together evidence from five of the BCRP technical reports to extend our understanding of the needs of and support provided for pupils with SLCN. In this report we examine the relationship between behavioural, emotional and social difficulties (BESD) and SLCN. These studies include three that investigated specific groups of children and young people with SLCN and two that comprised analyses of the national datasets for England, the School Census and the National Pupil Database.

Key Findings
- Children and young people with SLCN and ASD are at increased risk of developing behavioural, emotional and social difficulties but there are different patterns for different domains of BESD.
- Overall, the main areas of difficulty are the development of successful peer relationships and prosocial behaviour and the risk of developing emotional difficulties.

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[1] https://www.education.gov.uk/publications/eOrderingDownload/Better_Communication.pdf

[2] Bercow, J. (2008) The Bercow Report: *A review of services for children and young people (0-19) with speech, language and communication needs*. Nottingham: DCSF. https://www.education.gov.uk/publications/eOrderingDownload/Bercow-Report.pdf

In general, children and young people with ASD have more difficulties than those with SLCN but both groups are at risk.

- The main implication is that interventions for children and young people with SLCN as well as those with ASD should be planned taking into account their needs as a whole. In addition, in order to develop their language and communication abilities, children and young people with ASD and SLCN require support to develop effective peer relationships and to address emotional difficulties.
- It is necessary to establish a profile of strengths and weaknesses for each child and young person with SLCN or ASD; to determine and implement an action plan that addresses the profile of needs; and to monitor over time as profiles can change.
- Diagnostic category is an insufficient indicator of need or of action.

Detailed findings

Compared with the general population of pupils of their age:

- The overall level of BESD was significantly higher than the norm for pupils with SLCN and those with ASD than the norm:
- Pupils with SLCN were more likely to have significant peer problems and emotional difficulties and less developed prosocial behaviour than the general population of the same age.
  - Levels of peer problems and difficulties with prosocial behaviour were even higher in pupils with ASD than those with SLCN
  - Levels were higher among older children with language impairment but higher among younger children with ASD.
  - Unaffected siblings of children and young people with SLCN and ASD also had higher levels of peer problems, indicating that siblings who do not have SLCN or ASD are at risk of difficulties with peer relationships.
- Prevalence of conduct problems and hyperactivity was also higher than the norm, but less so than the other measures of BESD.
- Pupils with ASD were, as expected, more likely than pupils with SLCN to exhibit autism characteristics but there was also a higher level of autism characteristics among pupils with SLCN than in the general population.
- Self-perceived quality of life was worse across a number of domains for pupils with ASD and those with SLCN, in particular difficulties with social acceptance and being bullied, moods and emotions.

- On other quality of life dimensions pupils with SLCN were significantly more positive than those with ASD: psychological well-being, parent relations and home life, social support and peers, and school environment.
- This pattern was replicated 12 months later, indicating the persistence of these difficulties; however the perceived quality of life level improved for both the SLCN and ASD groups for moods and emotions, self-perception, and social acceptance/bullying.
- Children with SLCN and ASD were more likely:
  - To have impaired social cognition and social communication but not difficulties with structural language abilities (e.g. grammar)
  - To come from socially disadvantaged backgrounds.

Analyses of the national statistics

As pupils with special educational needs (SEN) move through the school system their needs are reassessed. Pupils with SLCN or ASD at the end of Key Stage 2 (Year 6), with levels of need at School Action Plus or requiring a statement of SEN, may have their needs redesignated. Our analyses show that:

- Pupils with SLCN do not have a particularly high risk of being recategorised as having BESD as their primary need after transfer to secondary education.
- Only 18% of pupils with **SLCN** but 41% with **ASD** at School Action Plus (SAP) at the end of Key Stage 2 remained in the SAP category at the end of Key Stage 3.
- The majority (59%) of pupils with SLCN but only a third of pupils with ASD move out of the School Action Plus category between the end of Key Stage 2 and end of Key Stage 3 into a lower level of need, i.e. either School Action or no special educational needs (non-SEN)
- Of those pupils with SLCN or ASD at School Action Plus who move into another SEN category at School Action Plus between the end of Key Stage 2 and end of Key Stage 3:
  - Only 7% of pupils originally with SLCN moved into BESD compared with 15% of pupils originally with ASD
  - More pupils with SLCN (24%) moved into an SEN category concerned with *learning difficulties* than pupils with ASD:
    - Moderate learning difficulties (MLD): 15% from SLCN, 11% from ASD,
    - Specific learning difficulties (SpLD): 9% from SLCN, 6% from ASD
- Only 2% of pupils with SLCN move to ASD.

- These patterns were similar for pupils with statements and for the smaller numbers moving between the end of Key Stage 3 and end of Key Stage 4.
- The characteristics of pupils that switched categories were:
  - For both pupils with SLCN and those with ASD, moving to another SEN category:
    - Lower attainment at the end of Key Stage 2
  - For pupils with SLCN only, moving to a lower level of need (School Action or non-SEN):
    - Having English as an additional language
  - For pupils with SLCN moving to another SEN category:
    - Attending a more disadvantaged school (one with a high proportion of pupils eligible for a free school meal)

Implications

- Although pupils with ASD are at greater risk of behavioural, emotional and social difficulties, there is a substantial overlap in the behavioural, emotional and social needs of pupils with SLCN and those with ASD. As with pupils with ASD, those with SLCN are at risk of having problems with peer relationships and prosocial skills and of developing emotional problems.
- Provision for pupils with SLCN and ASD should take into account this overlap: this implies a focus on individual needs rather than diagnostic groups.
- Provision for pupils with SLCN, as well as those with ASD, should take into account their likelihood of needing support to develop peer relationships and prosocial skills as well as language, and their increased level of risk for emotional problems.
- Monitoring of pupils with SLCN, especially during Key Stages 3 and 4, should prioritise these domains as well as language and attainment.
- Pupils with SLCN and ASD are also at risk of developing conduct problems and hyperactivity: this level of risk is lower than for peer problems but is noteworthy and conduct problems may increase during later secondary education.
- As they get older reviews of pupils' development, should include assessments of autism characteristics and language impairments to inform the determination of primary needs, including any decision to redesignate the primary need as BESD. This is especially necessary for pupils whose primary need has been identified as ASD.

- Designated specialist provision within mainstream schools is highly valued by parents: further development of such provision offers the opportunity for a combination of specialist support and mainstream education.

- The overlap between SLCN and ASD indicates that the determination of pupils' needs requires careful assessment to identify their profiles of strengths and weaknesses with respect to different aspects of speech, language and communication, and of behavioural, emotional and social difficulties; and also the need for careful monitoring of changing profiles of needs over time: diagnostic category is insufficient to plan provision and intervention.

1.   INTRODUCTION

The Better Communication Research Programme (BCRP) was commissioned as part of the Better Communication Action Plan[3], the government's response to the Bercow review of services for children and young people with speech, language and communication needs (SLCN). This recommended a programme of research 'to enhance the evidence base and inform delivery of better outcomes for children and young people' (p.50)[4]. This is one of four thematic reports which synthesize the findings from the 10 technical reports that report the results from individual BCRP projects; there are also two interim reports and a report of the BCRP as a whole (see Appendix 1 for full details).

There is now substantial research evidence that children and young people with speech, language and communication needs (SLCN) are more likely to develop behavioural, emotional and social difficulties (BESD) than typically developing young people (Beitchman et al., 1996; Fujiki, Brinton & Clarke, 2003; Tomblin et al, 2000). Studies have shown prevalence rates as high as 35-50 per cent (Lindsay, Dockrell & Strand, 2007; St. Clair et al., 2011; van Daal, Vehoeven & van Balkam, 2007). However, the relationship between SLCN and BESD is complex. The type of behavioural, emotional and social difficulty is a factor. Indeed the term itself indicates that it is a generic descriptor for three related but different domains of development. Similarly, there are different profiles of language difficulties[5]. It is also important to consider other factors that might impact on language and on behavioural, emotional and social development, including academic ability (e.g. literacy) and self-concept. Also important are the age of the child and environmental factors, primarily the home and school including the influence of socioeconomic disadvantage.

In this report we draw on several of the projects within the Better Communication Research Programme in order to explore the complex relationships between language impairment and behavioural, emotional and social difficulties. We then explore the implications for policy and practice.

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[3] https://www.education.gov.uk/publications/eOrderingDownload/Better_Communication.pdf

[4] Bercow, J. (2008) The Bercow Report: *A review of services for children and young people (0-19) with speech, language and communication needs*. Nottingham: DCSF. https://www.education.gov.uk/publications/eOrderingDownload/Bercow-Report.pdf

[5] Dockrell, J., Ricketts, J., Palikara, O., Charman, T., & Lindsay, G. (2012). *Profiles of need and provision for children with language impairment and autism spectrum disorders in mainstream schools: A prospective study.* London: DfE

1.1   Prevalence

The term behavioural, emotional and social difficulties (BESD) is similar to the term speech, language and communication needs (SLCN). Both are generic terms within the education system for children and young people with special educational needs. Both are used in the School Census to collect data on all pupils in the English state school system. However, for research and practice purposes and for the benefit of parents it is necessary to distinguish the different types of domains within the generic category of BESD.

Behavioural difficulties comprise, in particular, conduct problems (e.g. aggression), hyperactivity and attention difficulties (including Attention Deficit and Hyperactivity Disorder). Hyperactivity and attention problems in both younger children (Lundervold, Heimann & Manger, 2008) and adolescents (Snowling et al., 2006) have a strong relationship with language difficulties. For example, 47 per cent of 8 year olds with specific language impairment (SLI) were rated by their teachers as showing significant hyperactivity using the Strengths and Difficulties Questionnaire, a measure we used in the BCRP (Lindsay et al., 2007).

Conduct problems have been found to be common in children with language difficulties in early childhood (Tomblin et al, 2000) but the evidence for this relationship among adolescents with language difficulties is mixed. For example, Clegg et al., (2009) reported that two thirds of pupils excluded from a school had language difficulties whereas a study of teachers' ratings of conduct problems in children with SLI aged 8, 10 and 12 years did not indicate an increased prevalence compared with the norm (Lindsay et al., 2007), although conduct problems were more prevalent at 16 years (Lindsay & Dockrell, in press).

Research on emotional difficulties has also produced conflicting findings. No significant increases in emotional problems were reported by Tomblin et al., (2000) or Lindsay and Dockrell (2000) among younger children with language impairment (LI). Studies of older children and adolescents with LI, however, have reported higher prevalence of emotional difficulties (Conti-Ramsden & Botting, 2008; Lindsay & Dockrell, in press; Redmond & Rice, 2002).

Greater consistency of findings has been found for problems concerning social relationships for children and adolescents with language impairment (Durkin & Conti-Ramsden, 2007; Fujiki et al., 2001). For example, prevalence of peer problems has been reported for

between 27-30% for children with LI at 8-12 years (Lindsay et al., 2007) rising to 54% at 16 years (Lindsay & Dockrell, in press).

1.1.1   Continuity of BESD over time

Continuity (or stability) over time refers to the degree to which children's needs change (or remain stable) as they get older. Continuity in levels of BESD among children with SLCN has been found for young children aged 4-8 years (Benasich, Curtis & Tallard, 1993). However, Lindsay et al., (2007) found that continuity over time varies with the BESD domain investigated. For example, the percentage of children with significant peer problems remained stable from 8 – 12 years at about 30 per cent whereas prevalence of hyperactivity reduced from 47 to 19 per cent over this age range. Both Lindsay & Dockrell (in press) and St. Clair et al. (2011) have reported that trends continue to vary between domains up to 16 years. This means that continuity differs with respect to BESD domains and so it is important to consider *age* and the *type* of BESD when considering the difficulties and needs of children and young people with language impairments.

1.1.2   Language impairments and BESD

The previous sections discussed the prevalence and continuities of BESD among children and young people with language impairments, and show that language impairments are a risk factor for BESD. A second body of research attempts to explore the relationship of type and severity of language impairment with BESD.

Hart et al., (2004) found a relationship between severity of language impairments and severity of problems with social (but not withdrawn) behaviours. Difficulties with understanding of grammar and ability to tell a story are negatively correlated with BESD in 8 year olds: children with lower levels of these language abilities are more likely to experience BESD (Lindsay & Dockrell, 2000). Other studies have found that behavioural difficulties are more common among children who have low nonverbal ability as well as language impairment (Benasich, et al., 1993; Snowling et al., 2006).

Evidence for early language difficulties being a predictor of later BESD is not consistent. Relationships have been found for pragmatic difficulties (understanding the meaning and nuances of different meanings of language) predicting behavioural difficulties (St Clair et al., 2011); receptive language difficulties in understanding language predicting friendship problems (Durkin & Conti-Ramsden, 2007); and expressive language difficulties at 8 years

predicting behavioural difficulties at 10 and 12 years (Lindsay et al., 2007). However, studies of adolescents have found a more complex relationship: both Botting and Conti-Ramsden (2008) and Lindsay and Dockrell (in press) found generally nonsignificant correlations between language abilities and BESD at 16 years.

The evidence suggests that impaired structural language (e.g. grammar, vocabulary) is not predictive of behavioural difficulties: however, impaired *social cognition,* including difficulties with understanding nuances of language and social communication, does appear to be an important factor in social difficulties (Ford & Milosky, 2003).

1.1.3 *Other factors*

In the general population poor academic achievement is associated with behavioural difficulties. For example, in their study of 8,000 5-16 year olds in Great Britain, Green et al., (2005), found that 56 percent of children with conduct problems had reading difficulties and 64 per cent had spelling problems. Furthermore, language difficulties are associated with poor literacy development (Catts et al., 2002; Dockrell et al., 2011).

In addition to child-based factors it is also important to consider the context in which children behave. Extensive research has demonstrated the importance of context in influencing behaviour. For example, Lindsay et al. (2007) found that there were significant differences between the ratings of behaviour of children with SLI made by their parents and those made by their teachers, although it should be noted that this may also reflect the perspectives of the respondents (parents and teachers respectively in this study) as well as the children's behaviour in the two different settings of home and school.

Socioeconomic disadvantage is a particularly important factor: children and young people in the general population are at greater risk of a range of behavioural, emotional and social difficulties with increasing socioeconomic disadvantage (Green et al., 2005).

1.2   The report

In this BCRP thematic report we present findings concerning the relationships with BESD for children and young people with either SLCN[6] or autism spectrum disorders (ASD) as their primary need. We have focused on pupils with SLCN and ASD as these are separate

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[6] We use the term SLCN unless the study being discussed defined the sample more specifically, e.g. as language impaired (LI).

categories of primary needs within the Government's SEN Code of Practice and also the School Census. We draw upon a number of studies within the BCRP to explore these relationships and to identify implications for policy and practice at national and local level.

Our aim in carrying out these projects was to explore in detail the nature of BESD for children and young people with SLCN. We explored the prevalence of BESD among pupils with SLCN and ASD nationally and we carried out detailed studies of three different samples of children and young people with SLCN or ASD at different ages. We used data from the national datasets (the School Census) and National Pupil Database to examine the similarity and differences between children and young people with language difficulties compared with those with ASD. We also explored parents' views of the nature of behavioural, emotional and social difficulties experienced by their children.

Using carefully devised research studies of samples of pupils and analysis of large scale (national) data, and including cross-sectional and longitudinal designs, we have produced a substantial body of evidence that provides a comprehensive examination of the relationship between language difficulties and BESD. The report also explores the implications for both policy and practice.
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2.   THE PREVALENCE AND NATURE OF BEHAVIOURAL, EMOTIONAL AND SOCIAL DIFFICULTIES

In this section we present the main findings from three studies. Each is reported in full in separate reports, details of and links to which are included in Appendix 1 and also in the main text of this report.

2.1   Prospective study of pupils with language impairment and autism spectrum disorder

We carried out a 3 year prospective study of 162 pupils (aged 6-12 years) identified with language impairments (LI)[7] or autism spectrum disorders (ASD) as their primary special educational need[8]. The aim of the study was to explore their characteristics and needs, and the provision made to meet those needs in the education system. As part of that study we explored these pupils' behavioural, emotional and social difficulties (BESD). By looking at pupils with LI and ASD we were able to explore differences and overlap on different domains of BESD and autism characteristics. We also explored how parents understood their children's needs, and their views on the ways in which those needs were being addressed. (See Section 4 for a report of parents' views)

The behavioural, emotional and social development of pupils in our prospective study was examined by teacher and parent completed questionnaires (SDQ)[9] and classroom observation. The SDQ provides information on different types behavioural, emotional and social difficulties.

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[7] The children were identified as having either SLCN or ASD according to the schools' assessments of primary need, which were reported in the School Census. We identified among the SLCN group pupils with different levels of nonverbal ability. We report here those children with SLCN who had language difficulty but average to above average nonverbal ability, the large majority in the SLCN group.

[8] Dockrell, J., Ricketts, J., Palikara, O., Charman, T., & Lindsay, G. (2012). *Profiles of need and provision for children with language impairment and autism spectrum disorders in mainstream schools: A prospective study.* London: DfE.

[9] *Strengths and Difficulties Questionnaire*. Goodman (1997); www.sdqinfo.com

2.1.1 Overall prevalence

Pupils with LI and ASD both had substantially higher levels of BESD compared with the general population, as indicated by the SDQ Total Difficulties score.

Furthermore, *levels* of problems compared with the norm differed by the BESD domain:

- Both the LI and ASD groups had high levels of BESD overall (Total Difficulties score)
- The level of problems with peers and, to a lesser extent, difficulties with prosocial behaviour were particularly high for pupils with ASD and also significantly higher than for the children with LI.
- There were no significant differences between the LI and ASD groups for emotional symptoms, conduct problems or hyperactivity.
- The level of emotional symptoms was about twice as high as for conduct problems.
- The level of conduct problems was also greater than the norm – but relatively less raised compared with peer problems and emotional difficulties.

The same pattern across the SDQ domains was found when the children were rated by their teachers on each occasion, about 12 months apart, demonstrating that for many children these difficulties endured over time.

It is important to be aware that not all pupils with SLCN or ASD will have substantial difficulties in these different domains of behavioural, emotional difficulties. *However,* children and young people with LI or ASD are at greater risk. It is therefore important to monitor their development keeping this is mind.

2.1.2 Comparison by age

A comparison of the SDQ scores for the younger children (Years 1 and 3) compared with the older children (Years 5 and 7 at Time 1) indicated similar patterns across the domain as for the full group. However, there were significant differences in the results for the LI compared with the ASD group:

- Older children with LI showed *higher* levels of difficulties with peer problems and prosocial behaviour compared with the younger children with LI.

but

- The older children with ASD showed *lower* levels of difficulties in these two domains than the younger children with ASD.

These results support possible differences in trajectories over time, in particular the possibility that social interaction with peers becomes more problematic for pupils with LI as they get older. Pupils with ASD, on the other hand, may learn to adapt to some extent – recall that pupils with ASD have substantially higher *levels* of difficulty. This greater adaptation may also be a function of the ASD group receiving more support from speech and language therapists and teaching assistants than the LI group.

2.1.3   Autism characteristics

Autism characteristics include a number of behaviours which are not covered by the usual interpretation of BESD. Our study included examination of these features in pupils with language impairment as well as ASD and so allowed us to explore overlap and differences.

Difficulties with social behaviour were further explored in the prospective study using the Social Communication Questionnaire (SCQ)[10], completed by parents, and the Social Responsiveness Scale (SRS)[11], completed by teachers and parents.

- As expected children with ASD scored significantly higher than those with LI on all three SCQ scales: Reciprocal Social Interaction, Communicating and also a Repetitive and Stereotyped Behaviour, as well as the Total Score.
- This pattern was very similar for both the younger (Years 1 and 3) and older (Years 5 and 7) pupils.

A similar pattern was found for the SRS administered at Time 2,

- Pupils with ASD scored significantly higher on four out of five subscales of the SRS (Social Awareness, Social Communication, Social Motivation, and Mannerisms), and the difference approached significance for the fifth subscale (Social Cognition).
- ASD scores were substantially higher than the norm.

A comparison between the scores provided by teachers at the two time points confirmed the pattern of higher levels of difficulty for the ASD group. In addition:

- Both cohorts (LI and ASD) showed *lower* levels of difficulty at the second occasion indicating a reduction in autism characteristics as the pupils in both cohorts matured.

Parents also completed the SRS on the second occasion. The pattern was similar: autism symptoms were very highly elevated compared with the norm for both the LI and ASD

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[10] Social Communication Questionnaire: Rutter, Bailey & Lord (2003)
[11] Social Responsiveness Scale: Constantino & Gruber, 2005)

cohorts, but the scores were significantly higher, indicating a higher prevalence of autism-related behaviours, in the ASD cohort on four of the five SRS subscales (reaching only a nonsignificant trend on the Social Cognition subscale) and the Total Score. Furthermore, parents reported significantly higher levels of autism characteristics than teachers, as reported also by Constantino et al. (2007).

2.1.4 Emotional and social well-being

The Prospective Study also provided data from the KIDSCREEN child and young person self-report *quality of life* measure[12], completed by those in our sample who were recruited in Years 3, 5 and 7. At the first assessment pupils with ASD showed a generally more negative profile than those with LI, indicating an impoverished quality of life with respect to psychological well-being, autonomy, parent relations and home life, social support and peers, school environment, and financial resources subscales.

The LI and ASD cohorts did not differ significantly on physical well-being or self-perception. Neither did the LI and ASD cohorts differ from each other in Moods and Emotions or the Social Acceptance/Bullying subscales. However, both cohorts scored very much lower on both of these subscales than the normative sample, indicating an impoverished quality of life. For example, KIDSCREEN asked questions such as 'Have you felt so bad that you didn't want to do anything?', 'Have other girls and boys made fun of you?' 'Have you felt lonely?'

When the KIDSCREEN was repeated about 12 months later a similar pattern emerged with the ASD cohort again showing a more impoverished quality of life compared with the LI group on four subscales, with significant differences from the norm for psychological well-being, parent relations and home life, social support and peers, and the school environment scales. On the other hand, quality of life improved in relation to the earlier assessment for both cohorts on the subscales moods and emotions, self-perceptions, and on the social acceptance and bullying subscales.

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[12] Ravens-Sieberer et al., (2005). The KIDSCREEN is used across a number of European countries. The KIDSCREEN comprises 10 subscales – see Figure 3.

2.1.5 What factors are associated with behavioural, emotional and social difficulties?

We investigated whether a number of variables that are known to be associated with BESD from other research were associated with our general measure of BESD, the SDQ Total Difficulties score. Our analysis explained the unique contribution of each of these factors at two time points 12 months apart.

After taking account of the group (LI or ASD), language and nonverbal ability, the significant predictors at first assessment were social disadvantage and in particular autism symptomatology, with higher levels of autism symptoms being associated with elevated levels of BESD. Twelve months later only autism symptoms consistently and significantly predicted BESD. In summary, the main predictor of BESD was autism symptoms, whereas language difficulty or whether the child had LI or ASD were not significant.

Given the importance of the SRS in both these sets of analyses we consider why it is such a clear predictor of behavioural difficulties. The scale measures behaviours as they occur in natural social settings. Specifically it targets key features of social interaction assessing social awareness, social information processing, capacity for reciprocal social communication, social anxiety/avoidance, as well as autistic preoccupations and traits.

These findings highlight the importance of capturing social impairment independent of a pupil's diagnosis (as our results were independent of whether the child had LI or ASD) and demonstrate how difficulties in these areas override other known predictors of BESD.

2.1.6 Classroom behaviour

As part of the prospective study we observed the pupils in an English language or literacy lesson[13]. The pupils were on-task for around 70% of the time with no differences between the cohorts, although older pupils (year 7) were significantly less likely to be engaged than pupils in years 3 and 5, When children were not engaged the majority of their off-task

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[13] See Section 3.1 of the prospective study: Dockrell, J., Ricketts, J., Palikara, O., Charman, T., & Lindsay, G. (2012) *Profiles of need and provision for children with language impairment and autism spectrum disorders in mainstream schools: A prospective study.* London: DfE.

behaviour was looking away or around the room or being passive; very little disruptive behaviour was observed. The only age differences concerned 'chatting' which was more common among year 7 pupils than those in years 3 or 5. Thus, despite raised levels at BESD, pupils' behaviour in lessons observed was not disruptive and the pupils were on task for the majority of the observation period.

2.2 Behavioural, emotional and social difficulties in secondary school pupils with SLCN

In order to explore the relationships between SLCN and BESD more widely we also undertook a study of secondary pupils (this Section) and a study of children and young people in a clinical sample (Section 2.3). The secondary school study focused entirely on pupils with SLCN as their primary need; the clinic sample study comprised children and young people with ASD as well as language difficulties, so allowing a further examination of the overlap for BESD in children and young people with language or ASD as their primary need.

A study by Joffe for the BCRP explored the extent to which pupils with SLCN were reported to have higher levels of behavioural, emotional and social difficulties (BESD) using the Strengths and Difficulties Questionnaire (Goodman, 1997) compared to a normative sample; whether there were differences between the pupils', parents' and teachers' reported levels of BESD; and whether there were any statistically significant relationships between BESD and verbal and nonverbal ability, educational attainment, socioeconomic status, and gender[14].

The study compared 352 year 7 pupils (mean age 12:08, 63% male) attending 21 mainstream schools. The pupils scored average (level 4A – 4C) or below average (< 3A) on the Key Stage 2 English Standard Assessment Test in year 6 (7% scored level 4A-B (average); 34% scored level 4C (low average), 59% scored 3A or below (below average) and for 3% Key Stage data were unavailable). All had been identified as having SLCN for the School Census.

Levels of BESD were significantly higher than the normative sample on all three versions of the SDQ: self report, parent report and teacher report for all scales and Total Difficulties,

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[14] See Section 7.1 by Dockrell and Joffe: in Lindsay, G., Dockrell, J.E., Law, J., & Roulstone, S. (2011) *Better communication research programme: 2nd interim report. DFE-RR 172*.London: DfE.

except the parent measure of Prosocial behaviour. Neither self, parent nor teacher ratings were related to the pupils' nonverbal ability or gender. However, both self and teacher ratings were related to educational performance: pupils scoring below average on the Key Stage 2 English SAT were found to have higher levels of BESD (SDQ Total Difficulties) than those scoring at an average level, on both the self- and teacher-reported SDQ. However, there was no significant correlation between language and BESD.

The level of BESD was also related to mother's educational level (university, school or college qualifications, or no formal qualifications). For both student- and teacher-completed SDQ Total Difficulties, pupils whose mothers had no formal qualifications showed higher levels of BESD than those with either college or, more particularly, university qualifications.

2.3   BESD in a clinical sample

Our prospective study (Section 2.1) showed that there was overlap for BESD between children and young people with language impairment and those with ASD in a mainstream school sample. We explored this question of overlap (i.e. similarities and differences) further using SDQ data from a sample of children and young people (6 – 16 years) derived from an existing study of language and genetics led by Baird[15]. Participants were all patients at a specialist tertiary paediatric centre and diagnosed with specific language impairment (SLI), ASD, or ASD with a language impairment. Data were also available from their 'unaffected siblings', providing within family comparison data. Including this group allowed us to examine whether siblings were also at risk for aspects of BESD even though they were not considered to have ASD or a language impairment prior to being assessed for the Baird study.

Our study had a full sample of 142 (92 males, 50 females). Of these, 50 children had been identified as the clinical sample and 92 as siblings. However, many of the siblings were also found to experience language and/or communication difficulties so four subgroups were formed: unaffected sibs, specific language impairment (SLI), autism spectrum disorder (ASD), or autism spectrum disorder with language impairment (ASD + LI).

Overall, both the ASD groups and the unaffected siblings performed within the average range and did not differ significantly from each other on the standardised measures of language and attainment In contrast, both the SLI and ASD + LI group performed poorly on

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[15] See Section 7.2 by Dockrell, Baird & Slomins: in Lindsay, et al. (2012) ibid.

these standardised measures and, typically, significantly lower than both the unaffected siblings and the ASD group.

We used the parent completed Strengths and Difficulties Questionnaire (SDQ) to examine BESD. The SDQ scores can be translated into risk categories: 80% of children will score in the normal range, 10% borderline and 10% abnormal[16]. The distributions for the four groups for the Total Difficulties score showed that the groups with the highest level of difficulties were the two ASD groups: indeed over 40% of the ASD group and almost 30% of the ASD + LI group scored in the 'abnormal' (clinically significant) category (Figure 1).
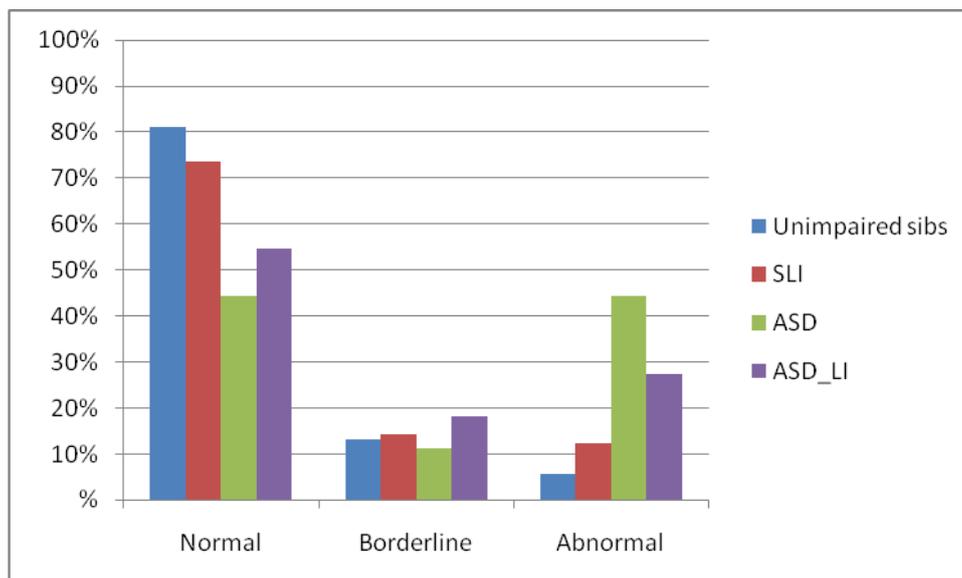
Figure 1 Risk categories for the four groups for total SDQ score

However, the aggregated total score masks the variation between the different domains. Very substantial proportions of each group had clinical levels ('abnormal') level of peer problems: 83% ASD and 73% ASD + LI; furthermore 35% of the SLI group and 38% of the unaffected sibs, also had clinical levels of peer problems compared with the norm of about 10%.

Levels of emotional symptoms were also high (39% ASD). By contrast only the ASD + LI group (18%) showed an elevated level of conduct problems compared with the norm.

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[16] www.sdq.info.com

2.4   Conclusions

Our three studies have examined the prevalence of BESD in different samples of children with language difficulties but common themes are evident. First, our results support earlier research which has indicated that children and young people with SLCN are at risk of BESD. Second, our results support the recent evidence showing the importance of examining different domains of BESD (Lindsay & Dockrell, in press; St. Clair et al., 2011). Third, our evidence also shows that conduct problems are *not* common; peer problems, emotional difficulties and impaired prosocial behaviour are the most significant types of difficulty experienced by children and young people with SLCN: the level of peer problems was raised in all three studies but particularly high in our clinical sample: over a third of children with language impairment (35%) and as high as 83% of children and young people with ASD had clinically significant peer problems compared with the norm of 10%.

Hyperactivity was also significantly more common across all our studies but we know from earlier work that this reduces steadily over age and reaches the levels of typically developing children by 16 years (Lindsay et al., St. Clair et al). Our studies also indicated a limited relationship between structural language (eg grammar) and BESD. However, with respect to peer problems the evidence indicates the importance of difficulties in *social interaction* for children with language difficulties as well as those with ASD, specifically skills in assessing social awareness, social information processing capacity for social communication, social anxiety/avoidance as well as autistic preoccupation and traits. It is likely that interventions to support the development of these skills might reduce the levels of BESD in pupils with SLCN: though this would need to be tested empirically.

In summary, these studies indicate that pupils with SLCN and ASD are at greater risk of BESD overall but that problems with peer relations are the most important domain to consider; social disadvantage is a factor – as it is generally with BESD across the population; structural language difficulties are not a key factor; but social cognition and interaction skills are associated with the key domain of BESD for children and young people with SLCN and ASD, with additional impact of autistic preoccupation and traits. Finally, siblings who do not have ASD or a language impairment are at higher risk of problems with peer relationships, indicating the importance of also monitoring their development.

3. TRAJECTORIES OF CHILDREN AND YOUNG PEOPLE WITH SLCN AND ASD: EVIDENCE FROM THE NATIONAL DATA

In this section we examine national data and focus on the two types of need grouped under "Communication and Interaction Needs", specifically Speech, Language and Communication Needs (SLCN) and Autistic Spectrum Disorders (ASD).

Two of the BCRP projects comprised analyses of the School Census and National Pupil Database for England. One focussed mainly on the transition between categories of special educational needs made by pupils with SLCN or ASD as they progress through the education system[17]. The other focussed mainly on the relationship between both SLCN and ASD and ethnicity[18]. Both are relevant here as the studies had complementary methodologies: the transition study included *longitudinal* analysis of a cohort of pupils as they were tracked through the school system from the end of Key Stage 2 to the end of Key Stage 4; the ethnicity study comprised a series of *cross sectional analyses* of census data over the period 2005-11, i.e. census reported in 2005, 2007, 2009, and 2011.

The main question we addressed was whether nationally pupils with SLCN became reclassified as they got older (especially after transition to secondary school) out of the SLCN category of primary need and into BESD. In order to address this question we first examined the prevalence trajectories of pupils with SLCN and repeated this for ASD as a comparison. We then explored movements out of the SLCN category of primary need and also replicated this for ASD. We also examined the characteristics of those that switched categories.

3.1   Data source

The School Census collects pupil level data on every pupil at a school in England, over 6.4 million pupils on each occasion. As a national census, these data are comprehensive and powerful. The data collected on Special Educational Needs (SEN) record two key pieces of information: First, the student's *level* of special educational needs if an SEN is identified, whether additional support is provided through a statement or at the lower levels of need at

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[17] Meschi, E., Mickelwright, J., Vignoles, A., & Lindsay, G. (2012). *The transition between categories of special educational needs of pupils with speech, language and communication needs (SLCN) and autism spectrum disorder (ASD) as they progress through the education system.* London: DfE.

[18] Strand, S., & Lindsay, G. (2012). *Ethnic disproportionality in the identification of speech, language and communication needs (SLCN) and autism spectrum disorders (ASD).* London: DfE.

School Action (SA), or School Action Plus (SAP). The statement and SAP levels are intended to meet needs that cannot be met from within the school's own resources and where the school involves external support (e.g. a speech and language therapist or an educational psychologist). For these two levels of need, the School Census also asks the school to record the student's *type* of special educational need, defined within twelve broad categories, one of which is speech, language and communication needs (SLCN).

A limitation of the School Census is that at SAP, and especially those with a statement, pupils will have had their needs assessed but there is no standard method or measure. Guidance is provided by the SEN Code of Practice[19], but, although assessment methods are likely to be common for pupils with SLCN or ASD who have statements, the assessment methods will be determined by those professionals who carry out assessments. Hence these data differ from the studies reported earlier where we assessed the pupils in a standardised manner on measures common to all pupils in the study. Consequently, the decision that a pupil has a special educational need at all, and that the child's primary SEN is SLCN or ASD, is a function of processes that will be similar but not identical.

3.2 Prevalence of SLCN by age group

In an earlier BCRP report[20] we reported variations in the prevalence of SLCN by age. This pattern has remained stable over the period 2005 – 2011. Figure 2 presents the most recent (2011) data[21].

[19] Department for Education and Skills (2001). *Special educational needs code of practice.* London: DfES.

[20] Meschi, E., Vignoles, A., & Lindsay, G. (2010). *An investigation of the attainment and achievement of speech, language and communication needs (SLCN).* London: DfE http://www.warwick.ac.uk/go/bettercommunication

[21] Strand, S., & Lindsay, G. (2012). *Ethnic disproportionality in the identification of speech, language and communication needs (SLCN) and autism spectrum disorders (ASD).* London: DfE.
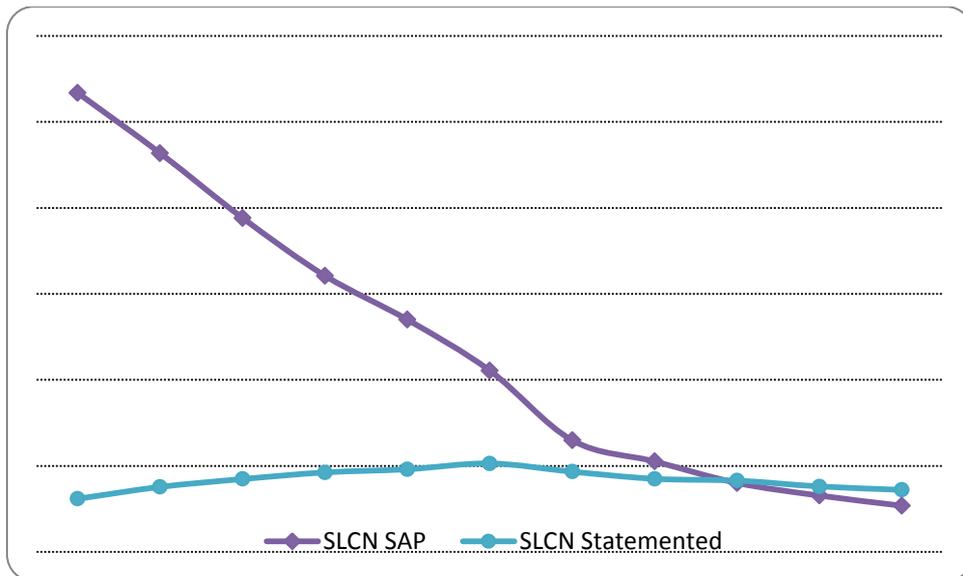
Figure 2 Prevalence of SLCN across year groups - 2011

Figure 2 demonstrates that a single prevalence rate for SLCN is misleading as it varies by age of child. The prevalence rate for pupils with SLCN at SAP is much higher at the start of primary school (year 1: 2.6%) but reduces substantially to 0.6% at Year 7, and continues to reduce to 0.35% to Year 11.

This might suggest that SLCN at SAP is a transitory need for many children and is either overcome or recedes (or at least is seen by schools to recede) as the child gets older. However, Figure 2 also shows that the percentage of children with statements where SLCN is the primary need remains fairly stable from Year 1 to Year 11, approximately 0.5%.

Alternatively the reason for the decrease in SLCN prevalence is that the pupils continue to have SEN but that either those needs change or they are classified differently. Discussions with many practitioners at the start of the BCRP suggested that at secondary transfer pupils with SLCN increasingly find secondary education difficult, behaviour problems might increase and, as a result, their primary needs are redesignated to behavioural, emotional and social difficulties (BESD). However, the reduction in the percentage of pupils with SLCN mainly *precedes* secondary transfer. We explored this further in two main ways: we repeated the analysis for pupils with ASD to see if there was a similar pattern and we examined the transitions made by pupils who moved out of the SLCN category and repeated this for those in the ASD category.
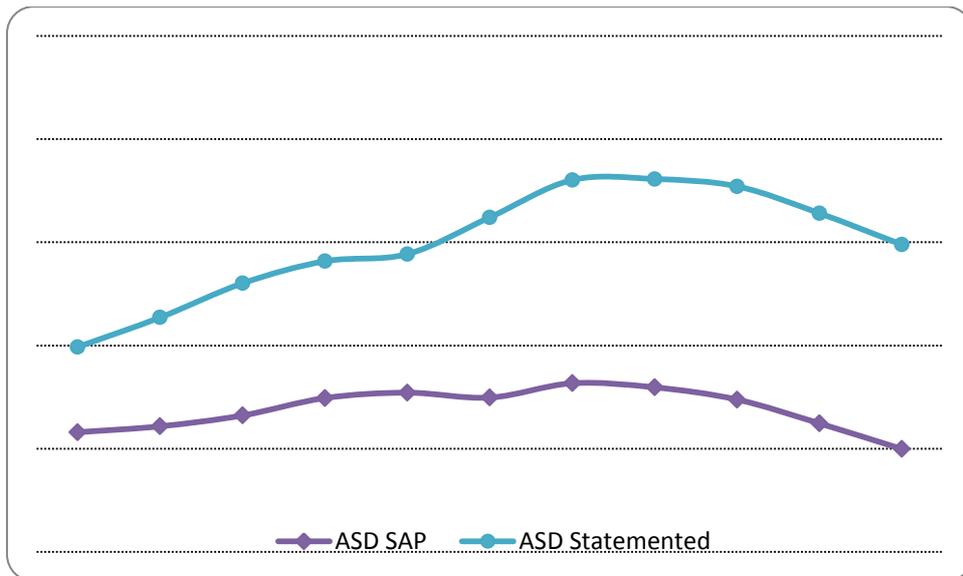
Figure 3: Prevalence of ASD across year groups – 2011

Figure 3, shows a very different pattern for ASD compared with that for SLCN. First, in contrast to SLCN (see Figure 2) there are consistently more pupils with statements than there are at SAP. Thus although the total prevalence of SLCN (SAP and statement) is much higher, the level of statemented need for SLCN and ASD is similar (around 0.5% and 0.6% respectively). Second, there is less substantial change across year groups for ASD, though the proportion of pupils with statements for ASD does increase slightly with age from around 0.4% at Year 1 to around 0.7% at Year 9 before dropping back to 0.6% at Year 11.

The differences between the SLCN and ASD data are striking. In the next section we explore these data further investigating the movements into and out of the SLCN and ASD categories.

3.3 Transition of pupils from SLCN and ASD to other categories of special educational need

In this section we draw on data on pupils over the period between the end of Year 6 (end of Key Stage 2) and Year 9 (end of Key Stage 3). There is relatively little movement over this period for pupils who do not have SEN in year 6.[22] There is much more movement out of the

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[22] See Table 12 in Meschi, E., Vignoles, A., & Lindsay, G. (2010). *An investigation of the attainment and achievement of speech, language and communication needs (SLCN).* http://www.warwick.ac.uk/go/bettercommunication

SLCN and ASD categories. In fact only 18% of pupils with School Action Plus SLCN at the end of Key Stage 2 remain in this category at the end of Key Stage 3. The majority (59%) move into a lower level of need (or no SEN at all). Only 17% move into another SEN category.

The question arises, therefore, into which category do those that 'switch' move, and in particular is the move mainly into BESD, possibly indicating a higher level of behavioural, emotional and social difficulties associated with the transition to secondary schooling? Figure 4 shows for pupils with SLCN at *School Action Plus* at the end of Key Stage 2, movement to BESD is only the third most common move by the end of Key Stage 3, at just 7%. By comparison, the main movements out of SLCN by the end of Key Stage 3 are to Moderate Learning Difficulties (MLD: 15%) and Specific Language Difficulties (SpLD: 9%). Only 2% of those with SLCN at the end of Key Stage 2 move to ASD. A similar pattern is found for those moving between the end of Key Stage 3 and end of Key Stage 4.

For pupils with a *statement* of SLCN at the end of Key Stage, 2 over half (54%) continue with a statement of SLCN at the end of Key Stage 3. Only 10% of those that switch categories move to BESD, compared with MLD (42%) followed by ASD (16%) and SpLD (15%). Again, the same pattern applies between end of Key Stage 3 and end of Key Stage 4.

SLCN

School Action Plus   **Statement**

Year 6   Year 9   Year 6   Year 9

MLD 15%   MLD 42%

ASD 16%

SLCN   SLCN

SpLD 9%   SpLD 15%

BESD 7%   *BESD 10%*

1

ASD

School Action Plus   **Statement**

Year 6   Year 9   Year 6   Year 9

BESD 15%   MLD 36%

ASD   ASD

MLD 11%   SLCN 24%

SpLD 8%   *BESD 18%*

2

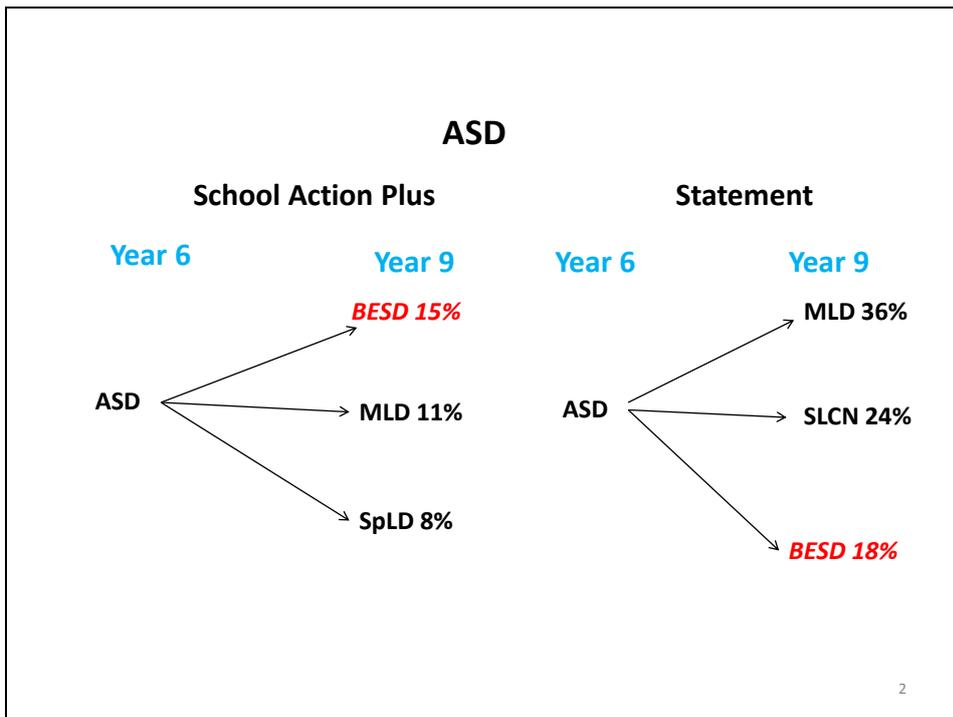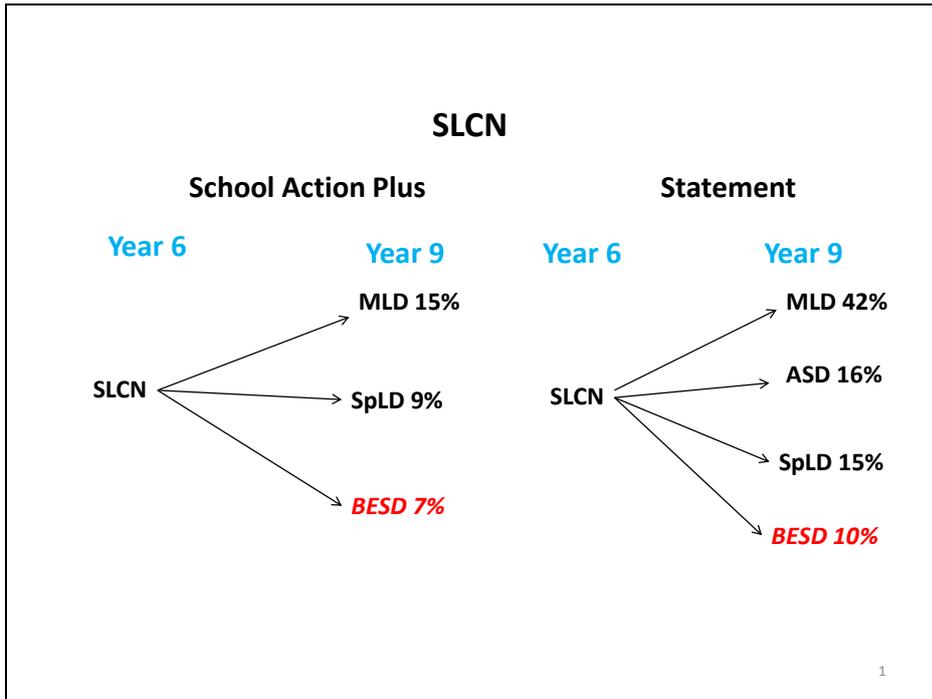**Figure 4. Destinations of pupils who move out of SLCN and ASD categories at School Action Plus and with a statement between Year 6 and Year 9**

Figure 4 shows that the pattern for the ASD category between the end of Key Stage 2 and end of Key Stage 3 differs from that of pupils with SLCN. The majority (41%) remain in ASD School Action Plus. The main movement from ASD to another SEN category at School

Action Plus is to BESD (15%), followed by MLD (11%), SpLD (8%), and SLCN (5%). For those pupils with statements the main movement from ASD is not to BESD (just 18%) but rather to MLD (36%) and SLCN (24%). The patterns for both School Action Plus and statements between the end of Key Stage 3 and end of Key Stage 4 are similar.

The national data indicate that pupils that switch from SLCN between the end of Key Stage 2 and end of Key Stage 3 (i.e. after they have moved to secondary education) are *not* primarily moving because they are considered to have needs associated with behavioural, emotional and social difficulties. They are over three times most likely to move into MLD or SpLD than into BESD.

3.4   Characteristics of those that switch SEN category

For both SLCN and ASD, pupils with lower attainment at the end of Key Stage 2 are more likely to make a transition into another category of SEN (SAP or statement) than pupils who continue in the SLCN or ASD category. For pupils with SLCN, but not those with ASD, having English as an additional language (EAL) is also associated with transition out of the SLCN category, either to school action SEN or non-SEN, i.e. a lower level of need..

3.5   Conclusions

Our study of the national School Census and National Pupil Database indicates that there is a substantial reduction in the number of pupils with SLCN at School Action Plus during Key Stage 1 and 2 but those who change categories of SEN between the end of Key Stage 2 and 3 do not move primarily into the BESD category but into MLD and SpLD, i.e. categories concerned with difficulties with learning. An important factor appears to be English as an additional language: pupils with SLCN at School Action Plus who also have EAL are more likely to switch from SLCN. By contrast, pupils with ASD who switch SEN categories at this stage are more likely to move to BESD indicating that the primary needs of those that switch are no longer seen as associated with ASD but with behavioural, emotional and social difficulties.

4.   PARENTS' PERSPECTIVES ON THEIR CHILDREN'S BEHAVIOURAL, EMOTIONAL AND SOCIAL DEVELOPMENT

In earlier sections we have reported data from individual assessments, observations and the national databases. In this Section we report the perspectives of parents. The BCRP overall was designed to access parents' views through a number of studies and we present these findings in the project report investigating parents' preferred outcomes for their children [23] and a thematic report [24]. We included parents' perspectives as a major research strand both because we consider it essential to respect parents' views and also because parents' perspectives are inherently very important, providing information to assist triangulation of evidence in the BCRP.

As part of our prospective study[25] we conducted telephone interviews with 139 parents of children with either language impairment (LI) or autism spectrum disorder (ASD). The interviews included questions about their child's relationships with other children and teachers. We also explored parents' perspectives on the degree to which their child's social and emotional needs were being met and their desired outcomes for their child.

We report these results mainly with respect to the two main cohorts (LI and ASD). Where appropriate we also distinguish these into subgroups, with reference to whether the children's nonverbal ability was average or below average.

4.1   Peer relations

The majority of parents considered that their child got on well (29%), quite well (27%), or OK (32%) with other children: only 13% of parents presented a negative view, (10% stating not well and 3% not at all well). However, there was a significant difference in parent ratings by cohort. Whereas about two thirds (68%) of the language impaired children rated their children's peer relations positively this was only the case for just over a third (37%) of the ASD cohort.

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[23] Roulstone, S., Coad, J., Ayre, A., Hambley, H., & Lindsay, G. (2012). *The preferred outcomes of children with speech, language and communication needs and their parents.* London: DfE.

[24] Roulstone, S. & Lindsay, G. (2012). *The perspectives of children and young people who have speech, language and communication needs,and their parents.* London: DfE.

[25] Dockrell, J., Ricketts, J., Palikara, O., Charman, T., & Lindsay, G. (2012). *Profiles of need and provision for children with language impairment and autism spectrum disorders in mainstream schools: A prospective study.* London: DfE.

Parents' explanations of the reasons for positive peer relations and examples of how their child was developing focussed on *friendships.* For example, comments made by parents of children with LI giving the most positive ratings included:

> 'She makes friends at a drop of a hat.'
> 'Has got loads of friends and goes to parties.'

Parents of children with ASD who were very positive gave rather different explanations, for example:

> 'No troubles as he doesn't interact.'
> 'OK in his year (but) does not socialise out of that.'
> 'All right. Not many friends (and) girls rather than boys.'

Only one of the 11 parents with a child with ASD and low nonverbal ability reported that her child got on very well with other children stating 'Everyone knows him – they give him a hug'. The one parent to rate her child as getting on quite well said that 'He has a small group of friends at (mainstream) school: they are of similar temperament'.

Where parents rated peer relations negatively, a number of different manifestations were reported. These included immaturity, shyness and hesitancy to engage.

> 'Not like an 8 year old – is like a 6 year old.' (ASD)
> 'He sticks with the girls. (I think) he feels inferior.' (LI)
> 'Some children take advantage of him – he's easily led.' (LI)

Reports of overt victimisation (12% of all parents) were about twice more common among parents of children with ASD than parents of children with LI. Victimisation was typically described in a general way, being 'picked on', or as relational bullying, being left out and isolated. Only one parent noted overt physical bullying, 'she gets pushed a lot' (LI) although the parent of a 12 year old girl (LI) reported that her son had been threatened by other children, one of whom had given him cigarettes and possibly drugs. Another reported of her 12 year old (ASD) that, 'Some demand money'. Two parents also mentioned teasing (verbal bullying).

Only three parents reported their child showed aggressive behaviour. One parent of a 12 year old boy with ASD considered that her child's problems with peer relations were, 'Partly him: he finds misbehaving attractive – he gets into squabbles'. A parent of a 10 year old (LI with low nonverbal ability) commented that her son had his own friends to play with but, 'Others he doesn't like one bit – he has a go at them'. Finally, a parent of an 8 year old (LI) reported that he played with many children but, 'he gets aggressive if he sees a threat from another child'.

The other two factors identified by parents for peer relationship problems concerned limited social skills. There could be problems linked to maturity, for example, 'Social skills are not what they should be… he behaves younger than his age, (LI, 10 year old). Other parents noted a lack of interest, 'He doesn't mix and is not interested in other children' (ASD, 12 year old), or a lack of social skills: 'He's not good at small talk' (ASD 12 year old).

The second factor concerned aspects of social cognition and appropriate social skills; that is, knowing how to interpret others' feelings, intentions and behaviour, and also having the appropriate skills to negotiate or behave in a way seen as acceptable (or 'normal') by other children. One parent of a 10 year old with LI commented that 'Kids notice he's a bit different – he's vulnerable'. Some parents linked these problems to verbal communication: 'Speech and language problems are still there – he can seem "foreign"' (LI, 12 year old); being 'very tactless' (ASD, 12 year old) or 'Not knowing how to talk about a topic' (ASD, 6 year old). Furthermore, one mother, who did not specify that her 10 year old child with ASD had been bullied nevertheless commented, 'What does he understand about bullying – does he interpret?' before going on to describe his taking out frustrations by kicking and damaging property.

4.2   Relationships with teachers

According to their parents, the children generally had positive relationships with their teachers and this was common across the cohorts, with about 80% of the children in both cohorts being described as getting on with their teachers very well or quite well and only about 3% overall commenting negatively.

The main message that comes out strongly from the parents' accounts is that the children like their teachers and the teachers like them. Children were also described as loving and adoring their teachers. Some teachers and TAs were described as having similarly strong feelings: 'Teachers love her' (LI, 6 year old); 'The LSA has a massive bond with (child)' (ASD, 6 year old); 'At parents evening they said he was a delightful boy' (ASD, 12 year old); 'Teachers say – what a lovely boy – he tries so hard' (LI, 8 year old).

Other reasons for these very positive relationships included a general liking for adults and more specific references to factors including feeling safe, obeying teachers, the teacher making the children laugh, having good rapport, being strict and 'having the measure' of the child. The reasons for the (very few) instances where the child did not get on well with their teacher concerned either the teacher shouting or where the teacher did not understand the child's ASD-related needs: 'Last year's teacher didn't know how to deal with (child's) Asperger's'.

4.3   Meeting social and emotional needs

Parents generally had a positive perspective of how school was meeting their children's social and emotional needs, although a higher proportion of parents in the ASD cohorts expressed a more muted view – but still very few gave a negative response.

The parents of children attending schools with specialist resources were generally more positive, referring to general organisational and support approaches rather than specific interventions. For example, one parent commented that:

'The new head teacher won't let a kid be on their own in the playground. She gives a good example of how to behave to each other. In all weather she's out in the playground – the head teacher is good at social aspects.' (LI, 8 year old).

Relatively few parents gave negative ratings – indeed no parent whose child was in specialist provision did so.

There was little evidence of special programmes being in operation to address behavioural, emotional and social needs. Rather, parents commented on features that indicated that staff had greater awareness, skills and knowledge, but also – and importantly – more flexibility and time to address problems that arose. For example, 'social groups' were mentioned with reference to both mainstream and specialist provision, but parents of children in specialist resources also mentioned that a child could remain in the resource at break and take friends with them or spend time being calmed down if upset. Many parents of mainstream children referred to sensitivity, encouragement, a sense of the school's caring ethos, and general support. One parent of a child with ASD commented 'They are trying – they're good, the SENCO is good, ASD is on the up'. A parent of a child with LI noted:

> 'They really try to encourage (child). (They run) after school clubs – (they're) unsung heroes, putting their own time in.'

On the other hand, a minority of parents of children in mainstream settings were concerned that the school was not meeting their child's social and emotional needs appropriately, as shown by these two parents: 'They try hard but it is not enough' (ASD); 'They don't have the time, especially the teachers' (ASD).

4.4   Conclusions

Parents were generally positive about how their children's behavioural, emotional and social needs were being met. The large majority of parents reported that their children had positive reciprocal relationships with their teacher (60% reporting this to be very positive). Parents of children attending mainstream schools with a designated specialist resource were especially positive. Two thirds of parents of children with language impairment consider their child to have positive peer relationships compared with one third of parents of pupils with ASD.

5. CONCLUSIONS AND IMPLICATIONS

The BCRP explored the relationship between both speech, language and communication needs (SLCN) and autism spectrum disorders (ASD), and behavioural, emotional and social difficulties (BESD), using national data, three rigorous studies of carefully defined groups of children and young people, and interviews with parents. Children and young people with primary language difficulties or ASD are more likely to have BESD *but* the relationship is complex: although children and young people with ASD tend to have higher levels of needs and are more likely to be considered to have BESD as they become older (Key Stage 3) there is a substantial overlap between the two groups, SLCN and ASD. This has important implications for policy and practice.

Compared with the general population of pupils of their age:

- The overall level of BESD was significantly higher for pupils with SLCN and those with ASD:
- Pupils with SLCN and ASD were more likely to have significant peer problems and impaired prosocial behaviour than the general population of the same age.
  - o Levels of peer problems and impaired personal behaviour were even higher in pupils with ASD than those with SLCN.
  - o Levels were higher among older children with language impairment but higher among younger children with ASD.
  - o Unaffected siblings of children and young people with SLCN and ASD also had higher levels of peer problems.
- Self-perceived quality of life was worse across a number of domains for pupils with ASD and those with SLCN, in particular social acceptance and being bullied, moods and emotions.
- On other quality of life dimensions pupils with SLCN were significantly more positive than those with ASD: psychological well-being, parent relations and home life, social support and peers, and school environment.
- This pattern was replicated 18 months later, indicating the persistence of difficulties; however the perceived quality of life level improved for both the SLCN and ASD groups for moods and emotions, self-perception, and social acceptance/bullying.
- Factors associated with BESD were:
  - o Impaired social cognition and social communication but not difficulties with structural language abilities (e.g. grammar)
  - o Social disadvantage.

Analyses of the national statistics show that:

- Pupils with SLCN are not significantly at risk of being recategorised as having BESD as their primary need at transfer to secondary education.
- Of pupils that move into another SEN category between the end of key stage 2 and end of Key Stage 3 only 7% of pupils originally with SLCN moved into BESD compared with 15% of pupils originally with ASD
    - More pupils with SLCN (24%) moved into an SEN category concerned with learning difficulties than pupils with ASD:
        - Moderate learning difficulties (MLD): 15% from SLCN, 11% from ASD,
        - Specific learning difficulties (SpLD): 9% from SLCN, 6% from ASD
- These patterns were similar for pupils with statements and for the smaller numbers moving between the end of Key Stage 3 and end of key stage 4.
- The characteristics of pupils that switched categories were:
    - For pupils with SLCN and those with ASD, moving to another SEN category:
        - Lower attainment at the end of Key Stage 2
    - For pupils with SLCN only, moving to a lower level of need (School Action or non-SEN):
        - Having English as an additional language
    - For pupils with SLCN moving to another SEN category:
        - Attending a more disadvantaged school (one with a high proportion of pupils eligible for a free school meal).

Implications

- Although pupils with ASD are at greater risk, there is a substantial overlap in the behavioural, emotional and social needs of pupils with SLCN and those with ASD. As with pupils with ASD, those with SLCN are at risk of having problems with peer relationships and prosocial skills and of developing emotional problems.
- Provision for pupils with SLCN and ASD should take into account this overlap: this implies a focus on individual needs rather than diagnostic groups.
- Provision for pupils with SLCN, as well as those with ASD, should take into account their likelihood of needing support to develop peer relationships and prosocial skills as well as language and their increased level of risk for emotional problems.

- Monitoring of pupils with SLCN, especially during key stages 3 and 4, should also prioritise these domains, as well as language and attainment.
- Pupils with SLCN are at low risk of developing conduct problems but this may increase during later secondary education.
- Full account should be taken of autism features and language impairments when determining primary needs, including any decision to redesignate the primary need as BESD. This is especially necessary for pupils whose primary need has been identified as ASD.
- Designated specialist provision within mainstream schools is highly valued by parents: further development of such provision offers the opportunity for a combination of specialist support and mainstream education. However, the overlap between SLCN and ASD indicates that the needs of pupils for this provision require careful assessment: diagnostic category is insufficient.

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APPENDIX 1 – BCRP REPORTS

All the BCRP reports are available from the BCRP page on the Department for Education's website: http://www.education.gov.uk/researchandstatistics/research and also from the BCRP page in the CEDAR, University of Warwick website: http://www.warwick.ac.uk/go/bettercommunication

Main report

1.   Lindsay, G., Dockrell, J., Law, J., & Roulstone, S. (2012). *Better communication research programme: Improving provision for children and young people with speech, language and communication needs.* London: DfE.

This report presents the main recommendations of the whole Better Communication Research Programme (BCRP). It draws on evidence provided in the thematic and technical reports. This report also considers the overall implications for policy, practice and research, and indeed seeks to bridge the gap between this substantial research programme and the policy and practice agenda.

Interim reports

2.   Lindsay, G., Dockrell, J.E., Law, J., Roulstone, S., & Vignoles, A. (2010) *Better communication research programme 1st interim report DfE-RR070. London: DfE.* (70pp). http://publications.education.gov.uk/eOrderingDownload/DFE-RR070.pdf

This report presents interim findings from the project that had been underway between January and July 2010; best evidence on interventions; the academic progress of pupils with SLCN; economic effectiveness; the initial phase of the prospective longitudinal study of children and young people with language impairment (LI) and autism spectrum disorder (ASD); and the preferred outcomes of children and young people with SLCN, and of their parents.

3.   Lindsay, G., Dockrell, J.E., Law, J., & Roulstone, S. (2011) *Better communication research programme 2nd interim report. DFE-RR 172*. London: DfE. (131pp). https://www.education.gov.uk/publications/eOrderingDownload/DFE-RR172.pdf

This report presents interim findings of the project that had been underway between July 2010 – January 2011. Further work is reported from analyses of the national pupil data sets examining development and transitions of pupils with SLCN or ASD between categories of special educational needs, the prospective study, and parents' preferred outcomes (an online survey). In addition, interim reports from new projects include: the initial phase of development of a Communication Supporting Classrooms Tool; a survey of speech and language therapists' practice regarding interventions; a study of language and literacy attainment during the early years through Key Stage 2, examining whether teacher assessment provides a valid measure of children's current and future educational attainment (led by Margaret Snowling and Charles Hulme); two studies of the relationship between SLCN and behaviour, with Victoria Joffe and Gillian Baird respectively; cost effectiveness of interventions; and the setting up of a prospective cohort study of speech and language therapy services for young children who stammer.

Thematic reports

4.   Dockrell, J., Ricketts, J. & Lindsay, G. (2012). *Understanding speech, language and communication needs: Profiles of need and provision.* London: DfE.

This thematic report examines the nature of speech language and communication needs and the evidence from BCRP studies that have explained both the nature and needs encompassed by the category and the provision made to meet those needs. This report draws upon six projects (8, 9, 10, 11, 14 and 15).

5.   Law, J., Beecham, J. & Lindsay, G. (2012). *Effectiveness, costing and cost effectiveness of interventions for children and young people with speech, language and communication needs.* London: DfE.

This thematic report first considers the nature of evidence based practice in health and education before reviewing the evidence for the effectiveness of interventions for children and young people with SLCN. The report also considers cost effectiveness and how it might be measured before examining the evidence of the cost effectiveness of SLCN interventions. The report draws on projects, 8, 10, 11 and 12.

6.   Lindsay, G. & Dockrell, J. (2012). *The relationship between speech, language and communication needs (SLCN) and behavioural, emotional and social difficulties (BESD).* London: DfE.

This thematic report explores the relationship between SLCN and behavioural, emotional and social difficulties. . We argue that there are different patterns of relationship between SLCN and ASD, and different types of behavioural, emotional and social difficulties. The report draws on the 2nd interim report (report 3) and project reports 9, 11 and 15.

7.   Roulstone, S. & Lindsay, G. (2012). *The perspectives of children and young people who have speech, language and communication needs, and their parents.* London: DfE.

The BCRP ensured that the perspectives of parents and children were explored through a number of different projects. This project explores the evidence primarily from projects 9 and 12, drawing on evidence from a series of specific studies of parents' and children's perspectives and also those of the parents in our prospective study.

Technical reports

8.   Dockrell, J. E., Bakopoulou, I., Law, J., Spencer, S., & Lindsay, G. (2012). *Developing a communication supporting classroom observation tool.* London: DfE.

This study reports the development of an observational tool to support teachers, SENCOs, speech and language therapists and others to examine the degree to which classrooms support effective communication. The report comprises a review of the evidence base for developing effective communication and an account of the empirical study to develop and determine the technical qualities of the tool.

9.   Dockrell, J., Ricketts, J., Palikara, O., Charman, T., & Lindsay, G. (2012). *Profiles of need and provision for children with language impairment and autism spectrum disorders in mainstream schools: A prospective study.* London: DfE.

The prospective study was the most substantial project in the BCRP running throughout the whole period of the research. Focusing on children and young people initially 6-12 years old, we report on the nature of their abilities in language, literacy, behavioural, emotional and social development; the perspectives of the parents; the support provided as examined by classroom observations and specially created questionnaires completed by their teachers and SENCOs.

10.   Law, J., Lee, W., Roulstone, S., Wren, Y., Zeng, B., & Lindsay, G. (2012). *"What works": Interventions for children and young people with speech, language and communication needs.* London: DfE.

This report provides a review of 60 interventions for children and young people with SLCN, all evaluated against 10 criteria. The report will form the basis of a web-based resource to be developed by the Communication Trust for easy access by practitioners and parents.

11.   Meschi, E., Mickelwright, J., Vignoles, A., & Lindsay, G. (2012). *The transition between categories of special educational needs of pupils with speech, language and communication needs (SLCN) and autism spectrum disorder (ASD) as they progress through the education system.* London: DfE.

Analyses of the School Census and National Pupil Database are used to examine the transition made by pupils with SLCN or ASD over time and by age. We examine factors that are associated with transition between levels of special educational need (School Action, School Action Plus and Statement) and having no special educational need (non-SEN), including having English as an Additional Language and attainment. We also explore school characteristics associated with different transitions to other categories of SEN.

12.   Roulstone, S., Coad, J., Ayre, A., Hambley, H., & Lindsay, G. (2012). *The preferred outcomes of children with speech, language and communication needs and their parents.* London: DfE.

This report provides findings from four different studies addressing the perspectives of children and young people with SLCN, and those of their parents. Data are reported from arts-based participating workshops for children, focus groups and a survey for parents; and a systematic review of quality of life measures for children.

13.   Roulstone, S., Wren, Y., Bakopoulou, I., Goodlad, S., & Lindsay, G. (2012). *Exploring interventions for children and young people with speech, language and communication needs: A study of practice.* London: DfE.

As a complementary study to our analysis of the evidence for interventions, we also carried out an interview study of speech and language therapy managers and educational psychology service managers, on the basis of which we conducted a national survey of speech and language therapists to examine prevalence of use of the different approaches.

14.   Snowling, M. J., Hulme, C., Bailey, A. M., Stothard, S. E., & Lindsay (2011). *Better communication research project: Language and literacy attainment of pupils during early years and through KS2: Does teacher assessment at five provide a valid measure of children's current and future educational attainments? DFE-RR172a.* London: DfE. https://www.education.gov.uk/publications/eOrderingDownload/DFE-RR172a.pdf

We report a study led by Margaret Snowling and Charles Hulme which explored whether teacher assessment and monitoring could be used to identify children with language difficulties in need of early interventions. This study was conducted to inform the Tickell Review of the Early Years Foundation Stage, in particular the proposals for a simplified framework and assessment process.

15. Strand, S., & Lindsay, G. (2012). *Ethnic disproportionality in the identification of speech, language and communication needs (SLCN) and autism spectrum disorders (ASD).* London: DfE.

This report complements that of Meschi et al (number 11). Using School Census data from four years (2005, 2007, 2009 and 2011) the report examines the issue of ethnic disproportionality (i.e. over- and underrepresentation of pupils from different ethnic groups) with respect to SLCN and ASD.

16. Roulstone, S., Hayhow, R., White, P. & Lindsay, G. (2012). *Prospective cohort study of speech and language therapy services for young children who stammer.*

This prospective cohort study follows children referred to speech and language therapy services because of stammering. The study tracks the children's process through the system and their outcomes.

17. Meschi, E., Vignoles, A., & Lindsay, G. (2010). *An investigation of the attainment and achievement of speech, language and communication needs (SLCN).* http://www.warwick.ac.uk/go/bettercommunication

This technical report presents early analyses upon which the study reported in report number 11 is based.