

Language abilities of secondary age pupils at risk of school exclusion: A preliminary report

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Abstract

In the UK, exclusions from school because of behaviour problems usually occur when other alternatives have proved unsuccessful. There is some evidence to suggest that behaviour problems and resulting school exclusions are associated with language impairment. In older children who are permanently excluded, expressive rather than receptive language impairment is more common and this is associated with increased rates of emotional problems (Ripley and Yuill, 2005). The language abilities of secondary age pupils at risk of permanent school exclusion who are still in mainstream educational provision have not yet been a focus of study. Fifteen pupils attending a mainstream secondary school located in an area of socio-economic deprivation were studied. All the pupils were at risk of permanent exclusion owing to significant behaviour problems. Measures of language and behaviour identified language difficulties in 10 of the 15 pupils, where five of these pupils had significant and severe language difficulties. In contrast, the remaining five pupils showed age-appropriate or typical language abilities. Although differences were identified in language abilities, severe behaviour problems were found in both the pupils with language difficulties and those with age-appropriate language. Mixed receptive-expressive language difficulties were more common than expressive only difficulties but these were not associated with a particular type of behaviour problem. For a high proportion of secondary age pupils at risk of permanent school exclusion, language difficulties are a factor in their behaviour problems and school exclusion. The preliminary findings are discussed with reference to the relationship between language impairment and behaviour problems, the criteria for defining language impairment in this population, the

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need for further research and potential implications for education and speech and language therapy.

Keywords: behaviour, language difficulties, school exclusion, secondary school

Introduction

School exclusions

Exclusions from school in the UK are typically a result of disruptive, aggressive and uncooperative behaviour. Where permanent, pupils are removed from the school register and the Local Education Authority is required to find alternative educational provision. Children with behaviour problems in special educational provision usually have a Statement of Special Educational Need. National government figures on the rate of permanent exclusions available from 1994 describe a rise in 1996–1997, a reduction in 1999–2000 and a slight increase over the last two to three years (DfES, 2002, 2003). Rates of permanent exclusion are higher in boys than girls, children in the care of local authorities and children in recognized areas of social deprivation (Audit Commission, 1999; DfES, 2002, 2003).

Language impairment and behaviour problems

The relationship between language impairment and behaviour problems has been discussed extensively in the research literature. Initially, this focused on children with previously identified speech and language impairment, finding high rates of social and behaviour problems, and delinquency as they grew older (Baker and Cantwell, 1987a, b; Botting and Conti-Ramsden, 2000; Brownlie et al., 2004; Clegg et al., 2005; Lindsay and Dockrell, 2000; Lindsey et al., 2007). In this population with clinically identified language impairment, mechanisms to explain the continuing co-morbidity are being identified. The research now recognizes that children's language difficulties can prevent meaningful communicative exchanges which then limit social opportunities and therefore impact on the child's social behavioural development (Lindsay et al., 2007). More recently, attention has turned to the speech and language abilities of children with primary behaviour disorders. Several studies predominantly from the USA but also the UK have found that such children have previously unrecognized speech and language impairments (Cohen et al., 1998; Cross, 2004; Cross et al., 2001; Prizant et al., 1990; Ripley and Yuill, 2005) which are considered to contribute to the development and/or maintenance of the behaviour disorder in some way.

However, the mechanisms through which this co-morbidity operates are not yet fully understood (Stringer and Clegg, 2006). These studies have focused exclusively on young children with formal diagnoses of behaviour and/or psychiatric disorders. In contrast, much less is known about the language abilities of older children, particularly adolescents excluded or at risk of permanent school exclusion. Ripley and Yuill (2005) assessed the receptive and expressive language abilities of 19 primary and secondary age boys who were permanently excluded from school. Expressive language problems dominated and these were linked to high levels of emotional symptoms. However, six of the boys did not show any language problems, leading the authors to conclude that for some excluded children, language impairment does not contribute to behaviour problems. Gilmour et al. (2004) compared the pragmatic communication abilities of 54 children excluded or at risk of exclusion between the ages of five and 10 years to children with conduct disorders and autistic spectrum disorders using the Children's Communication Checklist (CCC) (Bishop, 1998). The results indicated that the children excluded or at risk of exclusion had similar pragmatic impairments to children with conduct disorders and autistic spectrum disorders. However, as the study did not assess receptive and expressive language in detail, no data was collected regarding the frequency of language impairment in the pupils excluded/at risk of exclusion.

The interest in the relationship between language impairment and behaviour problems has extended to include the population of young offenders (i.e., people under the age of 18 years who are convicted of a criminal offence and given a prison sentence to serve in a Youth Offenders Institution). Higher rates of language and communication difficulties are found in young offenders than would be expected in the overall population (Bryan, 2004; Bryan et al., 2007). Although the origin and nature of these difficulties is not known, they are likely to have emerged during childhood and may have been associated with behaviour problems and even school exclusions during the school years.

Delayed language development is found more often in young nursery age children in areas of socio-economic deprivation (Locke et al., 2002) and there is now some emerging evidence to support the persistence of this language delay for some of these individuals in later childhood (Leyden et al., 2007; Myers and Botting, 2008) and adolescence (Spencer et al., 2007). Schools with high rates of exclusions are also typically located in areas of socio-economic deprivation. Therefore, socio-economic deprivation may be a factor involved in both the language difficulties and the behaviour problems of pupils at risk of school exclusion.

To date, there is some evidence to suggest that for some children and adolescents who are excluded, language impairment is associated with behaviour

problems and ultimately school exclusion. The boys recruited to the Ripley and Yuill (2005) study were all permanently excluded and were therefore receiving special educational support outside of mainstream provision. The language abilities of secondary age pupils at risk of permanent school exclusion who are still in mainstream educational provision have not yet been a focus of study. The present study therefore investigated the speech and language abilities of secondary age pupils at risk of permanent school exclusion. Pupils were recruited from a large secondary school located in an area of significant socio-economic deprivation. The pupils had a history of temporary multiple exclusions due to severe behaviour problems and were considered at risk of permanent exclusion. The children did not have a statement for emotional and behavioural difficulties (EBD) but did access an onsite resource termed a 'learning support unit'.

The study aimed to answer the following research questions:

- 1) Do mainstream secondary age pupils at risk of permanent school exclusion have language difficulties?
- 2) Are expressive language difficulties more common than receptive or mixed receptive–expressive language difficulties?
- 3) Are specific types of language difficulties associated with behaviour problems?

Method

Participants

The participants were recruited from a large mainstream secondary school located within an Education Action Zone (EAZ) in South Yorkshire, UK. The school was situated in an area of recognized socio-economic deprivation as measured by Noble's Indices of Deprivation – Revised (2004) where the school's catchment area is ranked between the bottom 0.3 and 2.6% of the wards in England. The participants all accessed the onsite Learning Support Unit (LSU) which is a designated resource for pupils at risk of permanent exclusion due to behaviour problems. The following criteria for inclusion was adopted: 1) designated access to the LSU due to behaviour problems resulting in multiple exclusions; 2) not receiving speech and language therapy at the time of the study; 3) at risk of permanent exclusion; and 4) English as a first language.

In total, 33 pupils met the criteria for inclusion in the study; however, it was only possible to obtain parental and pupil consent for 15 pupils. One pupil and his family declined to participate. Three pupils were on the 'Looked After

Children's register (Social Services) and were deemed unable to participate. Parental consent forms for the remaining 14 pupils were not returned despite encouragement from staff in the LSU and the research team to respond.

The mean age of the participants at the time of the assessment was 13 years and 8 months (SD 1.2; Range 11;05 years to 15;04 years). Fourteen participants were male and one was female. Six participants had additional difficulties as follows: one had a statement of Special Educational Needs for mild learning difficulties; one had a mild congenital hearing impairment requiring a hearing aid; three had received diagnoses of Attention Deficit Hyperactivity Disorder (ADHD) through the regional Child and Adolescent Mental Health Service (CAMHS); and one had received speech and language therapy for a stammer but had not received any speech and language therapy services for the past five years. According to the individual school records, the remaining 14 pupils had no history of contact with speech and language therapy services. All 15 of the pupils had been excluded from school at least three times and were therefore deemed at risk of permanent exclusion.

Procedure

All of the participants were assessed individually in the LSU. The assessments took place over three sessions, lasting for two hours in total.

Measures

Four standardized measures of receptive and expressive language were chosen to give standardized scores for the cohort covering the age range of early adolescence.

Receptive language: The Test for the Reception of Grammar – Version 2 (TROG – 2) (Bishop, 2003) measured receptive grammar at the sentence level. This is a widely used test which identifies difficulties in specific aspects of grammatical understanding such as function words, word order and inflections. Normative data is available from the TROG – 2 up to the age of 16 years and yields standard scores with a mean of 100.

The Listening to Paragraphs subtest from the Clinical Evaluation of Language Fundamentals – UK 3 (CELF-UK3) (Semel et al., 1995) was used to assess understanding at a paragraph level. This was considered an important measure to include as learning at secondary age is dependent on the ability to process and understand chunks of information delivered orally. In this subtest, short stories are read out to the participant who then completes a series of questions pertaining to the factual and inferential information in the story. Normative data is available from the CELF^{UK3} up to the age of 16 years and yields standard scaled scores from 3 to 16 where 10 is the mean.

Expressive language: *The Formulating Sentences subtest from the CELF^{UK3}* assessed the ability to verbally formulate semantically and syntactically appropriate sentences. The ability to generate expressive language is crucial to engaging in learning through discussion and debate in the classroom. The participant is shown a picture and verbally presented with a stimulus word that is related to the picture. The participant is then required to make up a sentence that uses the stimulus word and is also related to the picture. The item is scored according to the syntactic complexity of the sentence and the semantic content.

The Recalling Sentences subtest also from the CELF^{UK3} is a measure of expressive language and sentence memory and is considered to be a sensitive measure of language impairment (Norbury et al., 2002). In this test, participants are required to repeat sentences of increasing length.

Behaviour: *The Strengths and Difficulties Questionnaire (SDQ)* (Goodman, 1997) was used to identify emotional and behavioural problems. The SDQ is a brief 25 item behavioural screening questionnaire that can be used with children between four and 16 years of age. The 25 items are divided into five sub-scales, with five items in each sub-scale; conduct, hyperactivity, emotional symptoms, peer problems and prosocial behaviour. A self-report version for children 11 years and older and an informant version of the SDQ are available. Either the child's parent or teacher can complete the informant version, which takes approximately five minutes. The score for each of the five sub-scales is generated by summing the scores for the five items that make up that scale. All items from the first four sub-scales are summed to generate a total difficulties score ranging from 0 to 40. The prosocial score is not included in the calculation of the total difficulties score. The SDQ has been shown to correlate strongly with the Child Behaviour Checklist (CBCL) (Goodman and Scott, 1999) and the Rutter Questionnaires (Elander and Rutter, 1996). The head teacher of the LSU completed the informant version of the SDQ for each pupil as he had the most daily contact with the pupils. A teacher was chosen as an informant because of the difficulty in obtaining reliable responses from parents and/or guardians.

Descriptive and non-parametric analyses were completed due to the small sample size and the variation in scores.

Results

Receptive and expressive language

Mean standard scores are reported for the language measures (see Table 1). The mean scores of the exclusion cohort fell on average -1 SD to 2 SD below the standard mean across the four language measures. Cohen's d was calculated to

examine the difference between the mean scores of the exclusion cohort and the test standardization samples on the four measures. Large differences were identified on all the measures except Listening to Paragraphs where there was only a moderate difference. The mean standard scores indicated a substantial degree of variation in language ability across the cohort (see Table 2) which on further analysis showed that ten participants scored -1 SD or more below the mean on three or more of the language measures indicating language difficulties. Importantly, five participants did not show any language difficulties although one of these participants gained a low score on the Listening to Paragraphs subtest (-1 SD) and another on the TROG -2 (-1 SD).

The mean scores of the participants with ($n = 10$) and without language difficulties ($n = 5$) across the four language measures are shown in Table 3. Interestingly, three of the participants with language difficulties scored within the mean on the Listening to Paragraphs subtest perhaps indicating that this was a less challenging comprehension task than the TROG-2 and potentially measuring a different aspect of comprehension. Five of the 10 participants with language difficulties scored -2 SD or below on two or more of the language measures indicating more significant and severe language difficulties. Of the six participants with additional educational difficulties, four were in the language difficulties group. These difficulties included mild learning difficulties, mild hearing impairment, a stammer and ADHD. The remaining two participants

Table 1 Mean standard scores of the exclusion cohort across the language measures ($n = 15$)

	Mean (SDs)	Min	Max	Cohen's d
<i>Receptive language measures</i>				
TROG -2	75.8 (14.5)	55	102	-1.6
Listening to paragraphs	7.7 (2.1)	6	12	-0.7
<i>Expressive language measures</i>				
Formulating sentences	6.1 (3.1)	3	12	-1.3
Recalling sentences	6.4 (2.3)	4	11	-1.2

Table 2 Frequency table showing the distribution of participants' standard deviation (SD) scores across the language measures

SD	TROG -2	Listening to paragraphs	Formulating sentences	Recalling sentences
-3 SD	3	0	0	0
-2 SD	2	0	6	4
-1 SD	6	9	4	5
Mean	4	6	5	5
Total	15	15	15	15

Table 3 Mean standard scores of the language difficulties group (LD) and typical language (TL) group

	Language difficulties group (n = 10)			Typical language group (n = 5)		
	Mean	Min	Max	Mean	Min	Max
<i>Receptive language Measures</i>						
TROG – 2	68.0 (13.1)	55.0	85.0	89.6 (9.3)	76.0	102.0
Listening to paragraphs	7.0 (1.3)	6.0	10.0	9.2 (2.6)	6.0	12.0
<i>Expressive language measures</i>						
Formulating sentences	4.4 (1.9)	3.0	7.0	9.6 (1.5)	8.0	12.0
Recalling sentences	5.0 (1.1)	4.0	7.0	9.2 (1.1)	8.0	11.0

Table 4 Correlations between the language measures

	Listening to paragraphs	Formulating sentences	Recalling sentences
TROG – 2	.14	.56*	.54*
Listening to paragraphs		.38	.56*
Formulating sentences			.90**

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

with diagnoses of ADHD were in the typical language group as was the only female participant.

A correlation matrix using Spearman's rank was calculated to determine the level of agreement between the four language measures (see Table 4). A significant correlation was identified between the two expressive measures ($r = .90$; $p < 0.001$) but not the receptive measures ($r = .14$; $p = .63$). Although the lack of correlation between the two receptive measures was surprising, it suggests that the two tests were measuring different aspects of verbal comprehension. The TROG-2 measuring receptive grammar at a sentence level and the Listening to Paragraphs subtest perhaps being more of a measure of contextual understanding at a paragraph level. As a cohort, the participants were better at contextual understanding than receptive grammar.

Behaviour

The total mean score and sub-scale scores were calculated for the exclusion cohort from the teacher report version of the SDQ (see Table 5). With the exception of one participant, the total SDQ score of 22.5 (SD 4.7) confirmed the presence of severe emotional and behaviour problems. Across the categories, conduct, prosocial and hyperactivity problems were the most severe with emotional and peer the least. The total and sub-scale scores were very

Table 5 SDQ mean scores and standard deviations of the exclusion cohort and language difficulties and typical language sub-groups

	Total	Conduct	Hyperactivity	Emotional	Peer	Prosocial
Exclusion cohort (n = 15)	22.5 (4.7)	6.0 (2.0)	7.0 (2.4)	4.8 (2.1)	4.5 (2.4)	2.9 (2.0)
Typical language group (n = 5)	21.4 (3.9)	5.0 (1.0)	7.2 (2.2)	5.0 (1.5)	3.8 (.83)	3.4 (2.3)
Language-difficulties group (n = 10)	23.1 (5.1)	6.5 (2.2)	6.9 (2.5)	4.7 (2.4)	4.9 (2.8)	2.6 (1.9)
- Expressive problems (n = 4)	23.0 (4.2)	6.0 (2.2)	6.8 (2.9)	5.2 (1.3)	4.7 (3.1)	3.0 (1.9)
- Mixed problems (n = 6)	23.3 (3.0)	7.0 (2.0)	7.0 (2.0)	5.3 (1.5)	3.6 (3.0)	.58

similar between the language difficulties and typical language groups. Mann-Whitney U tests showed no significant differences.

Associations between language and behaviour

A composite expressive language score was derived by calculating the z scores for the two subtests (Formulating Sentences and Recalling Sentences) and combining the z scores to gain a mean z score for expressive language. The formula used was: z score = participant’s standard score – test mean standard score/test standard deviation. The same procedure could not be repeated for receptive language due to the lack of correlation between the TROG-2 and the Listening to Paragraphs subtest. The TROG-2 was therefore taken as a measure of receptive language, specifically receptive grammar as the lack of correlation between the two receptive measures questioned the exact abilities that the Listening to paragraphs subtest was measuring. A mean z score for the TROG-2 was calculated using the formula above. The mean composite z score for expressive language was –1.9 (SD 1.3; range –3.3 to .25) and the mean z score for receptive language was –1.6 (SD 1.0; range –3.0 to .10). Correlations between the total SDQ score, expressive language and receptive language were completed (see Table 6). No significant correlations were identified between behaviour and either receptive or expressive language for the exclusion cohort.

The composite expressive language score and the receptive language score were then used to categorize the language difficulties group (n = 10) into those with receptive only problems, expressive only problems and mixed receptive-expressive problems. A z score of less than –2 SD was used as the cut off as this is indicative of severe difficulties. Six participants showed

Table 6 Correlations between behaviour and receptive and expressive language

	TROG - 2	Expressive composite score
SDQ total score	.12	.20
TROG - 2		.55*

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

mixed receptive – expressive problems and four showed expressive only problems. None of the participants showed receptive only problems. Table 5 compares the SDQ scores of the expressive and mixed receptive-expressive sub-groups. The SDQ scores were very similar across these language difficulties sub-groups for the SDQ total and sub-scale scores. The small number of participants prevented any further statistical analyses being completed.

As mentioned previously, one participant did not show emotional and behavioural problems as rated by the SDQ. This pupil was male and 12 years 6 months of age at the time of assessment. On the TROG-2, he gained a standard score of 55 and a scaled score of 6 on the listening to paragraphs subtest. Scaled scores of 7 and 6 were achieved on the Formulating Sentences and the Recalling Sentences subtests respectively. Although he did not display significant emotional and behavioural problems he did show significant receptive and expressive language difficulties.

Discussion

This preliminary report of the language abilities of a small cohort of mainstream secondary age pupils at risk of permanent school exclusion has several important findings worthy of further investigation. Ten of the 15 pupils at risk of permanent exclusion showed language difficulties as defined by a performance of -1 SD or more on three or more of the four language measures completed. Furthermore, five of these 10 pupils with language difficulties showed significant and severe language difficulties as defined by a performance of -2 SD or more on two or more of the four language measures completed. In the language difficulties group, mixed expressive-receptive problems were more common than expressive problems only. A key finding is that five pupils from the exclusion cohort showed average or above average language ability. These pupils with typical language abilities showed behaviour problems of a similar high severity to the pupils with language difficulties. In summary, a high proportion of this sample of mainstream secondary pupils at risk of permanent school exclusion had language difficulties which co-occurred with behaviour

problems and risk of exclusion. However, specific associations between types of language difficulties and behaviour problems were not identified. It is worth comparing the findings of this preliminary report to those from the Ripley and Yuill (2005) study of primary and secondary age excluded pupils in special educational provision. Both studies identified unrecognized language impairment in conjunction with severe behaviour problems and school exclusion. Furthermore, both studies also identified a proportion of pupils with emotional and behaviour problems but no language impairment. In contrast to the findings from Ripley and Yuill (2005), the study reported here failed to find any specific associations between types of language impairment and types of emotional and behaviour problems. Higher rates of expressive language impairment and emotional problems were not found. This may be explained by the smaller data set and the inclusion of secondary age pupils only in the present study.

Interestingly, two of the three participants with ADHD showed typical language ability yet the literature suggests that language impairments often co-occur with ADHD (Clegg and Hartshorne, 2004; Love and Thompson, 1988; Tannock et al., 1993; Taylor et al., 1991). The four other pupils with additional educational difficulties were categorized with language difficulties. The range of additional difficulties was diverse including pupils with mild learning difficulties, ADHD, mild hearing impairment and speech difficulty. The pupil with a hearing impairment did not wear his hearing aid and the participant with a persisting speech difficulty had not received speech and language intervention since primary school.

Only one of the 10 pupils with language difficulties had an identifiable speech difficulty, documented in his school records as a persisting stammer. The stammer was not considered a current cause for concern by the school staff. For the remainder of the language impaired pupils, language difficulties were not accompanied by obvious speech difficulties (although aspects of speech processing were not assessed in detail) and perhaps this is why language abilities and therefore referrals to speech and language therapy (SLT) services were not considered. Generally, SLT services to secondary schools are limited (Lindsay et al., 2002) and therefore this may also have been a factor.

Socio-economic deprivation

Some children and adolescents in areas of socio-economic deprivation present with language delay when measured on standardized language measures (Locke et al., 2002; Myers and Botting 2008; Leyden et al., 2007; Spencer et al., 2007). The secondary age pupils in this study were recruited from the same area of socio-economic deprivation as the nursery age children studied

by Locke et al., (2002). It may be that the ten pupils identified with language difficulties in this study have longstanding language delay that has not resolved over time. However, only one participant had a record of contact with SLT services (for a stammer) and therefore further study is needed to investigate if persisting language delay is a feature of these pupils.

The findings from the study suggest that for some young people, language difficulties are involved in behaviour problems and therefore school exclusion. These are complex associations and any assumption that language difficulties lead directly to behaviour problems should be challenged. Further research could attempt to clarify whether this is a causal relationship, where language difficulties negatively affect emotional and behaviour development in some way or simply a correlational observation, i.e. language difficulties and behaviour problems co-occur because of other factors. Correlational relationships are more likely given factors of variation in language ability, issues of socio-economic deprivation and a range of additional educational needs (Stringer and Clegg, 2006).

Defining language difficulties and language impairment in this population

The threshold at which language assessment scores indicate impairment is continually debated in the literature (Leonard, 1998; Plante, 1998; Spaulding, Plante and Farinella, 2006). In this study a more stringent criterion is adopted (i.e. -1 SD or more on three or more language measures and -2 SD on two or more language measures to indicate significant and severe difficulties) to categorize those pupils with and without language difficulties. Adoption of more stringent criteria should prevent the identification of participants who fall in the low average range. This is particularly important given that these participants were recruited from an area of significant socio-economic deprivation where language delay and low average language scores are often reported (Clegg and Ginsborg, 2006; Locke et al., 2002; McIntosh et al., 2007). The term 'language difficulties' is used rather than 'impairment' as the nature of the language difficulties identified in this cohort are unknown and probably influenced by issues of socio-economic deprivation although this needs confirmation. Much more research is needed to identify the severity and specificity of these difficulties particularly from an educational and functional communication perspective and the contribution of socio-economic deprivation and other factors.

The challenges of studying hard-to-reach populations

This is a small but potentially important study and therefore the findings must be interpreted with caution. It is not known how representative the language

abilities of this sample are when compared to the whole school population. It may be that a significant proportion of the pupils in the school also present with language difficulties when measured on standardized assessments. Without this control data it is not possible to draw any firm conclusions about the cause and severity of the language difficulties identified.

A less than 50% consent rate was obtained from the original cohort of 33 pupils identified for recruitment to the study. These pupils are a 'hard to reach' cohort where parental issues including complicated family circumstances and perhaps poor literacy abilities probably impacted on the parental consent rate. As a result, the small sample recruited may not be entirely representative of this group and certainly affected the extent of the analysis that could be conducted. Interestingly, all 15 participants willingly completed the entire assessment battery. However, much more information about language functioning is needed particularly with respect to issues of learning and the emphasis on written language and academic attainment at secondary level. The reduced data set certainly compromises the findings of the study and the conclusions drawn. However, this small preliminary study is one of the first to describe in detail the language abilities of mainstream secondary age pupils at risk of permanent exclusion. Further studies are needed to look at the language and behaviour profiles of larger cohorts of pupils and assess language abilities in much more detail as well as considering the role of socio-economic deprivation in any relationship between language difficulties and behaviour problems. Given the late identification of language and communication difficulties in young offenders (Bryan, 2004; Bryan et al., 2007), research must consider how to meet the challenges of recruiting and studying representative samples from hard to reach populations much earlier on in their lives (Pomerantz, Hughes and Thompson, 2007).

Conclusion

The study identified language difficulties in a high proportion of mainstream secondary age pupils at risk of permanent school exclusion in an area of significant socio-economic deprivation. The study indicates that for some secondary age pupils, language difficulties co-occur with and is therefore associated with behaviour problems and school exclusion. The nature of this association remains unclear and requires further study. Importantly some pupils with behaviour problems have adequate language abilities and therefore behaviour problems and resulting exclusion are not associated with language difficulties.

The high number of pupils identified with language difficulties in this sample suggests that education, health and social services need to consider adopting

a more multi-disciplinary approach to some mainstream pupils at risk of permanent exclusion. Certainly, the language difficulties identified in pupils in this study advocate the routine assessment of language abilities, the involvement of speech and language therapy services and training staff in secondary education to increase their awareness of language difficulties.

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