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Abstract

The study investigated the bullying experiences of a population of 139 young people with specific language impairment (SLI) and a comparison group of 124 typically developing (TD) young people, both currently at 16 years and retrospectively. The majority of young people in each participant group did not report being teased or bullied currently, but the incidence of teasing or bullying was around 10 per cent higher in the SLI group (17.3 per cent) as compared to the TD group (7.2 per cent). Almost half (44.2 per cent) of the SLI group recall being teased or bullied when they were younger, compared with under a quarter (22.6 per cent) of the TD group and 13 per cent of the SLI group were found to have experienced persistent bullying across time. Behavioural/social-emotional problems were found to predict the likelihood of young people with SLI being bullied, while measure of IQ, language, literacy, friendship and prosocial ability were found to have no significant predictive effect. Current bullying in the SLI group was found to be significantly correlated with anxiety and depression symptoms. The fact that young people with SLI experience an increased vulnerability of being bullied is discussed, together with the implications for their mental health.

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BULLYING IS a term widely recognised to describe the abuse of power (Rigby, 2002) with intent to emotionally hurt or physically harm an individual (Peterson & Rigby, 1999), sustained and repeated over time (Olweus, 1993). When exploring the bullying of young people with special educational needs, Norwich & Kelly (2004) used the term generically to describe various forms including verbal and physical as well as teasing (even 'in fun'). Anti-bullying policies and campaigns in operation in schools, organisations and the media reflect widespread current concern for the level of negative impact that bullying may have on individuals. Victims of persistent bullying have been found to have significantly lower levels of educational achievement and employment (Fosse, 2004), higher psychosomatic and psychosocial problems in childhood (Fekkes, Pijpers *et al.*, 2006), and an increased likelihood of depression (Hawker & Boulton, 1996) and other psychopathology (Kaltiala-Heino *et al.*, 2000; Kumpulainen *et al.*, 1998; Roland, 2002). In addition, there is evidence that persisting bullying can have effects in adulthood including increased rates of adult anxiety disorders (McCabe *et al.*, 2003), depression and poor psychosocial adjustment (Olweus, 1993).

The risk of being bullied experienced by children and young people with specific language impairment (SLI) is barely understood owing to a paucity of research literature in this area. However an examination of existing, albeit scant, literature does prompt concern for this particular population. Savage (2005) found that Year 7 children attending a speech and language resource attached to a mainstream school, were 3 times more likely to experience bullying than mainstream peers. These findings are in agreement with previous studies from our own research group which have also found children with SLI to be at a significantly higher risk of being bullied than children of typical development (Conti-Ramsden & Botting, 2004; Knox, 2003).

Interestingly, the wider population of children and young people with statements of special educational needs have been consistently found to be targets of bullying and victimisation in school. Doren, Bullis and Benz (1996) found that in their study of 221 adolescents with a range of developmental disorders (including young people with SLI), 54 per cent had experienced bullying. Norwich and Kelly (2004) found examples of bullying specifically relating to learning difficulties in 49 per cent of the 101 children with statements of Special Educational Needs (SEN) they studied. Other significant studies conducted by Martlew and Hodson (1991),

Nabuzoka and Smith (1993), and Whitney, Smith & Thompson (1994) all agree that special populations incur at least twice the risk of being bullied than their typically developing peers. Difficulties shared by young people with SLI and young people with non-specific learning difficulties such as peer acceptance (Mishna, 2003; Perry, Kusel & Perry, 1988;), poor social skills (Nabuzoka & Smith, 1993; Whitney & Smith, 1993) and emotional-behavioural problems (Beitchman *et al.*, 1996) are often cited as risk factors for being bullied. However, as remarked by Marini, Fairbain & Zuber (2001), the conceptual link between special educational needs and bullying risk may be strong but the empirical evidence remains limited.

Among the studies which have employed a developmental analysis of bullying, there is general agreement that bullying decreases over time from childhood through adolescence up to 16 years of age (e.g. Olweus, 1993, 1994; Pellegrini & Long, 2002; Pepler *et al.*, 2006; Rigby, 1996). In an educational context, incidence of bullying was generally found to be lower in secondary school than in primary school although a number of studies cited a peak in levels of bullying around the period of transition (Pellegrini & Long, 2002; Pepler *et al.*, 2006). Attempts to explain this age-related decline were described by Smith, Madsen and Moody (1999) and include the acquisition of social skills and assertiveness skills; changes in definition and perception of bullying, and a diminishing opportunity for older peers to assert bullying behaviour.

In an eight-year longitudinal study Sourander *et al.* (2000) found developmental patterns of self-reported bullying consistent with those discussed above, and presented compelling evidence for persisting victimisation from the age of 8 years to 16 years. Additionally, the study found strong associations between emotional difficulties and behavioural problems at 8 years, and the likelihood of being bullied at 16 years. Although few other studies have explored the link, subgroups of bullying victims have also been found by Austin and Joseph (1996) and Kumpulainen *et al.* (1998) to exhibit more behavioural problems than peers not involved in bullying behaviour.

In addition, links between depression, anxiety and bullying have been found (e.g. Rigby, 1996) and have become well established in the research literature. These symptoms/psychopathologies are now considered characteristic of the typical bullied victim. Indeed it would seem that the association is strong and furthermore predictive of new onset of such disorders following experiences of being bullied (Fekkes *et al.*, 2006). Having

said this, Craig (1998), although making the association, was unable to predict depression from victimisation in children and suggested that depression may be a function of more general overall functioning, not specifically related to bullying or victimisation. Little information is available on the nature of these relationships in atypical populations such as young people with a history of SLI.

Within this context the present study aimed to examine bullying in a large cohort of young people with a history of SLI. Specifically, the present study addresses the following questions:

1. Are children with SLI more likely to be bullied than typically developing peers?
2. Does the risk of being bullied change over time, between childhood and adolescence?
3. What factors predict bullying risk?
4. Are anxiety and depression associated with experiencing bullying in young people with SLI?

Method

Participants

Young people with SLI. 139 young people with a history of SLI who were originally part of a wider longitudinal study, the Manchester Language Study were invited to participate in the present study during their final year of compulsory education. The initial cohort of 242 children was recruited at 7 years of age from 118 language units attached to mainstream schools across England. Language units enrolling children with global delay or hearing impairments were excluded from the original selection procedure, and the resulting 242 were selected at random from the 500 Year 2 children who were in attendance at a unit for at least 50 percent of the week. These children continued to participate in the study at 8 years of age ($n = 234$), 11 years of age ($n = 200$) and at 14 years of age ($n = 130$). The 139 young people who agreed to participate in the present study were aged between 15 years 2 months and 16 years 10 months (mean age 15;10 years) and consisted of 69.1 per cent males. Participants were not found to differ significantly on any early measures of language, cognition or SES

compared to the 42.6 per cent of the original 242-strong cohort who chose not to participate. Families of the young people showed a range of socio-economic status roughly matching that of the general population and not significantly different from the typical development (TD) group described below.

TD Young People. A comparison group of 124 young people with no history of special educational needs or speech and language therapy provision participated in the study. Also in their final year of compulsory education, the TD group consisted of 61 per cent males and were aged between 15 years 2 months and 16 years 7 months (mean age 15;11 years). At the time of recruitment this group was representative of the range and distribution of households in England in terms of household income and maternal education as per census data of the 2001-2002 General Household Survey (UK Office of National Statistics).

Table 1 presents the characteristics of the young people with SLI and the TD peers in terms of their age, current language, literacy and cognitive ability.

As would be expected, the participants with SLI differed significantly from their TD peers on the measures of expressive language ($F(1,256) = 204.2$, $p < .001$, partial $\eta^2 = .44$); receptive language ($F(1,257) = 62.4$, $p < .001$, partial $\eta^2 = .19$) and the measures of literacy ($F(1,200) = 62.9$, $p < .001$, partial $\eta^2 = .24$). In addition, the young people with SLI had lower non-verbal abilities than the TD group ($F(1,254) = 52.7$, $p < .001$, partial $\eta^2 = .17$).

Measures

Bullying measures. Two measures of bullying experience were included in a wider questionnaire for young people in their final year of compulsory education (devised for broader research purposes). The self-report items required participants to quantify their bullying experiences in response to the questions: 'How much do you get teased or bullied now?' (current) and 'When you were younger, were you ever teased or bullied then?' (retrospective). Four possible response options were available for each question: 'No

	Age	Non-verbal IQ (WISC III)	Expressive language (CELF RS)	Receptive language (CELF WC)	Reading comprehension (WORD)
SLI ($n = 139$)	15;10 (0;5)	84.1 (18.8)	74.1 (11.0)	83.9 (16.9)	75.7 (14.3)
TD ($n = 124$)	15;11 (0;4)	99.9 (15.8)	97.2 (15.0)	99.5 (13.2)	91.4 (11.4)*

Table 1: Current participant descriptives: means (sds). *Note:* The reading comprehension measure was available for approximately half the TD young people due to time constraints. * $n = 69$

more than other kids'; 'A bit more than other kids'; 'Often teased or bullied' and 'Teased or bullied all the time'. These responses were scored from 0 to 3, with 0 being the most favourable.

Behavioural/social-emotional functioning. The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) provided a measure of behavioural and social-emotional functioning. This is a 25-item questionnaire in which a combination of positive and negative statements are presented to the participant, who declares each one to be either 'not true', 'somewhat true' or 'certainly true' of themselves. For example, a participant is presented with the statement 'I am restless, I cannot stay still for long' and would rate its level of applicability to themselves using a one of the three responses mentioned above. The responses are scored from 0 to 2 with favourable responses achieving a 0 (with the exception of the 'Prosocial' subscale, see below). The SDQ comprises five subscales of 5 items each: conduct problems; emotional problems; hyperactivity; peer problems and prosocial behaviour. Each subscale total is derived from the sum of its 5 items. For the purposes of the present study, one item of the peer subscale was removed as this item is about bullying (i.e. 'Other children or young people pick on me or bully me') and we were interested in the relationship between other prosocial behaviours and bullying. As such, the remaining 4 items in the peer subscale were pro-rated in order to derive a subscale score. The SDQ total score is achieved by summing the scores of each subscale, except the prosocial subscale which is excluded. As any departure from the score of 0 for individual items indicates a more problematic response, a high SDQ total score is indicative of behavioural and social-emotional difficulties. For the prosocial subscale, the scoring principle is reversed so that a higher score is associated with positive friendly behaviours. This subscale has been used independently in the present study.

Friendship. Quality of friendships was measured using the Friendships and Social Relationships section of the Social-

Emotional Functioning Interview (SEF-I; Howlin, Mawhood & Rutter, 2000). This section involves a detailed interview designed to examine aspects related to quality of social interactions in adolescents/adults. It was originally designed to interview two groups of young adults: a group with a history of SLI and a group with a history of autism spectrum disorders. The interview has two versions: self-report and informant report. The self-report version was administered to the adolescents and the informant version was administered to their parents. Each interview had three items that directly examined friendship relationships: Perception of acquaintances, Description of current friendships, and Concept of friendships/Quality of friendships.

We computed a combined participant/informant friendship index through summing the 6 items above (three self-report and three parental report). This yielded a friendship index with a minimum score of 0 and a maximum score of 16. A score of 0 represented good quality of friendship. Conversely, a score of 16 represented severely restricted quality of friendship. The distribution was found to be positively skewed (skewness 1.186, SE .231, kurtosis .480, SE .459). Following a square root transformation, skewness was .686 (SE .231) and kurtosis $-.681$ (SE .459). This transformed SEF-I based friendship index has been used successfully in examining friendships in adolescents with SLI (Durkin & Conti-Ramsden, 2007) and was used in the relevant analyses below.

Anxiety and depression. The 28-item Child Manifest Anxiety Scale (CMAS-R; Reynolds & Richman, 1978) was employed as a measure of symptoms of anxiety. Each item consists of a statement, to which the participant must respond by indicating whether or not the content reflected the way they had been feeling for the previous 3 months. This response could be 'true' or 'not true'. Higher scores indicate elevated levels of anxiety.

Depressed mood was measured by the Short Form Moods and Feelings Questionnaire (MFQ; Costello & Angold, 1996).

Participants indicate whether each of the 13 descriptions of mood and feeling represent their own feelings over the previous 3 months. Responses may be 'definitely true', 'somewhat true' or 'not true'. Depressed mood is indicated by higher scores.

Language. The Clinical Evaluation of Language Fundamentals – revised (CELF-R; Semel, Wiig & Secord, 1987) was used to provide two measures of language ability. Expressive language assessed using the Recalling Sentences subtest, while a measure of receptive language was taken using the Word Classes subtest.

Literacy. The Reading Comprehension subtest of the Wechsler Objective Reading Dimensions (WORD; Wechsler, 1993) was administered as a measure of reading with understanding.

Nonverbal IQ. A full assessment battery from the Wechsler Intelligence Scale for Children (WISC-III; Wechsler, 1992) was administered to provide a measure of non-verbal IQ.

Procedure

The young people with a history of SLI and the TD peers were all assessed and interviewed at home or at school on the measures detailed above, as part of a wider battery. Present only were the participant and a trained researcher in a quiet room, with each item presented in both a written and an oral format. Data for the TD peers were all collected at 16 years of age. However, data relating to the language, literacy and nonver-

bal ability of the young people with a history of SLI were collected at either 14 years old ($n = 92$) or 16 years ($n = 47$). For ease, no distinction will be made between the two time points and all such data will be referred to as 'current'. The remaining measures were all completed by the young people with a history of SLI at 16 years.

Results

Incidence of bullying experiences: current and retrospective

The majority of young people in each participant group did not report being teased or bullied currently, as seen in Table 2. A summary variable has been included where the four possible categories of teasing/bullying have been collapsed into two categories describing those young people who were bullied (at any level) versus those who were not bullied at all. As summarised in Table 2 by this variable, the incidence of teasing or bullying was around 10 per cent higher in the SLI group (17.3 per cent) as compared to the TD group (7.2 per cent). Chi-square analysis confirmed a statistically significant relationship between group membership and current bullying experience ($\chi^2(1) = 5.98, p = .014$).

Self report of past experiences also showed increased recall of bullying experiences by the SLI group. Almost half (44.2 per cent) of the young people in the SLI group recall being teased or bullied when they were younger, compared with under a quarter (22.6 per cent) of the TD group.

	SLI group ($n = 139$) Current	SLI group ($n = 138$) Retrospective	TD group ($n = 124$) Current	TD group ($n = 124$) Retrospective
'No more than other kids'	82.7% (115)	55.8% (77)	92.7% (115)	77.4% (96)
'A bit more than other kids'	7.2% (10)	21% (29)	5.7% (7)	13% (16)
'Often teased/bullied'	5.8% (8)	10.8% (15)	0.8% (1)	4.8% (6)
'Teased or bullied all the time'	4.3% (6)	12.4% (17)	0.8% (1)	4.8% (6)
Summary: Teasing/bullying of any degree	17.3% (24)	44.2% (61)	7.3% (9)	22.6% (28)

Table 2: Proportions of young people in the SLI group and in the TD group who report being teased or bullied currently and retrospectively. *Note:* N.B. frequencies are presented in brackets

		Teased/bullied when younger	
		No teasing/bullying	Some teasing/bullying
Teased/bullied currently			
No teasing/bullying currently	SLI	51.5% (71)	31.2% (43)
	TD	72.6% (90)	20.2% (25)
Some teasing/bullying currently	SLI	4.3% (6)	13% (18)
	TD	4.8% (6)	2.4% (3)

Table 3: Bullying versus non-bullying experiences currently and retrospectively. *Note:* N.B. frequencies are presented in brackets

Chi-square analysis again found a statistically significant relationship between group membership and increased recall of teasing or bullying when younger ($\chi^2(1) = 13.61$, $p < .001$).

Both groups show a considerable decrease in bullying experience over time, with the majority of all bullying experiences in both groups being accounted for in the retrospective.

Persisting bullying

For the next analysis the four possible categories of bullying, representing degrees of bullying, were collapsed into two categories of bullied (at any level) versus non-bullied. Table 3 shows that around one third of the SLI group were bullied in the past but have no current experience, 4.3 per cent are being bullied currently for the first time and 13 per cent of the SLI group have experienced persisting bullying across time. Thus, around half of young people with SLI report having been bullied at some time in their lives. This compares to just over one quarter of the TD group. The majority of the TD group (72.6 per cent) have never experienced bullying, while 2.4 per cent report persistence of bullying over time. Chi-square analysis applied to both of these sets of data show past experience of being bullied to be significantly associated with current levels of bullying for the SLI group only ($\chi^2(1) = 11.17$, $p = .001$).

Table 4 summarises the incidence of persisting bullying and chi-square analysis of these data showed that young people with a history of SLI are significantly more likely

than TD young people to have bullying experiences that persist over time ($\chi^2(1) = 9.99$, $p = .002$).

What characteristics are associated with current bullying?

The following characteristics were examined for their possible association with bullying: nonverbal IQ, language ability, literacy, friendship as measured by the SEF-I, prosocial ability and behavioural/social-emotional functioning, the latter two measured by the SDQ. For this analysis, current bullying was defined as per the 4-part scale.

As illustrated in Table 5 however, little or no relationship was evident between bullying and nonverbal, language or literacy ability for either participant group. Modest correlations were observed between bullying and friendships for all young people, but the most interesting and significant correlation was between current bullying experiences and behavioural/social-emotional difficulties (as measured by the Strengths & Difficulties total score) for the SLI group. The TD group showed no such association.

	SLI group	TD group
Persistent teasing/bullying	13% (18)	2.4% (3)
Non-persistent or no teasing/bullying	87% (120)	97.6% (121)

Table 4: Incidence of persisting bullying in young people with a history of SLI and TD young people. *Note:* N.B. frequencies are presented in brackets

What factors predict current bullying?

To further explore the role played by behavioural/social-emotional difficulties in the likelihood of being bullied currently, a hierarchical regression was conducted. Consistent with the above analyses, individual models were constructed for the SLI group and the TD group. The first block for the regression consisted only of nonverbal IQ. The second block added the further characteristic areas of language, literacy, friendships, prosocial behaviour and behavioural/social-emotional functioning.

Table 6 illustrates the hierarchical regression model predicting bullying for the SLI group. The overall variance explained was 15.2 per cent, with no significant effect accounted for by nonverbal IQ in the first step. The SDQ total difficulties score made the only significant contribution to the prediction of current bullying ($p < .01$) in the second and final step. The regression model for the TD group alone was not significant at either step. Thus the results so far indicate that there appear to be different factors influencing the likelihood of being bullied at 16 years for young people with SLI than for their typically developing peers.

Logistic regression analyses were employed to further explore the role of behavioural/social-emotional difficulties in the likelihood of being bullied. Only the group of young people with a history of SLI was included in this analysis and bullying outcome at 16 years was again collapsed

into the two categories of no current teasing/bullying and some current teasing/bullying. Using a forward stepwise procedure, with significance levels for entry set at $p = 0.05$, the SDQ total difficulties score was the only variable entered into the first step of a logistic regression ($\text{EXP}(B) = 1.25$, 95 per cent confidence interval = 1.12-1.39). The odds ratio for this analysis shows that for every one point increase in the SDQ total difficulties score, young people with a history of SLI have a 25 per cent increased risk of being bullied.

Are anxiety and depression associated with being bullied in young people with SLI?

This analysis explored the possible relationships between current bullying and young people's experience of anxiety and depression symptoms as measured by the MFQ and the CMAS-R scales. Correlation data presented in Table 7 illustrates significant associations between current levels of bullying and both anxiety and depression in the SLI group but not for the TD group suggesting that young people with a history of SLI who are bullied are more likely to have anxiety and depression symptoms than TD young people who have had similar experiences of being bullied.

Discussion

The present study investigated bullying experiences in a population of young people with SLI and a typically developing comparison

	'How much do you get teased or bullied now?'	
	SLI	TD
1 WISC PIQ at 16 years	-.023	.082
2 CELF-R Recalling sentences	-.073	.217*
3 CELF-R word classes	-.110	-.053
4 WORD reading comprehension	-.089	-.013
5 SEFI Friendships	.071	.025
6 SDQ Prosocial score	-.029	.016
SDQ Total score	.380**	-.012

Table 5: Correlations between current bullying, cognition, language, literacy and behavioural/social-emotional functioning. *Note:* * Correlation is significant at the 0.05 level; ** Correlation is significant at the 0.01 level

Predictors of Bullying	B	Std. Err.	β	Sig.	95% Conf. Int. for B	
Step 1						
Constant	.396	.315		.211	-.228	1.020
PIQ at 16yrs	-.001	.004	-.023	.796	-.008	.006
Step 2						
Constant	-.315	.666		.637	-1.633	1.003
PIQ at 16yrs	.000	.005	-.006	.957	-.009	.009
CELF-R recalling sentences	-.002	.008	-.035	.762	-.018	.013
CELF-R word classes	-.002	.006	-.050	.704	-.014	.009
WORD reading comprehension	.003	.007	.053	.670	-.010	.016
SEFI Friendships	.022	.035	.057	.526	-.047	.091
SDQ Prosocial subscale score	.011	.036	.027	.767	-.061	.083
SDQ Total	.051	.012	.383	.000	.028	.075

Table 6: Predictors of current bullying: SLI group. *Note:* Total amount of variance explained in step 1 = 0.1% ($R^2 = .001$); Total amount of variance explained in step 2 = 15.2% ($R^2 = .152$)

group, both currently and retrospectively, with the aim of highlighting particular risk factors and associated symptoms/psychopathologies.

The involvement of a typically developing comparison group matched with, and representative of, the national population in maternal education and socio-economic status has proved to be a strength of the present study. In particular, the prevalence of bullying within the group of young people with SLI has been given greater significance for the educational context and a meaningful examination of the associated factors has been enabled beyond the clinical thresholds of research tools. Yet, there may also be potential limitations of the study. The use of a retrospective measure of bullying in the past, rather than a prospective one was enforced by the absence of available longitudi-

dinal comparison data and limited the study's ability to examine the possible impact of, for example, early social functioning and friendships on persistent or later bullying experience. However Rivers' (2001) study of adult retrospective reports of school bullying experience found recall to remain stable, and thus sufficiently reliable, over time.

It is also possible that the use of self-report measures throughout may further limit the usefulness of the present data with particular relevance to the examination of participants with language and communication difficulties and those with raised levels of anxiety and/or depression. It could be argued that an accurate measure of their bullying experience may be clouded by a tendency to interpret social interactions (and other experiences) as having a negative quality, where other typically developing young people may not.

Incidence and persistence of bullying

The results showed that significantly more young people in the SLI group experienced bullying than young people in the TD group both in the present and in their recollections of the past. Although unsurprising, as this finding is consistent with previous research indications from special populations, it adds weight to the

	'How much do you get teased or bullied now?'	
	SLI	TD
1 MFQ total score	.287**	-.010
2 CMAS-R total score	.329**	-.029

Table 7: Correlations between current bullying and anxiety/depression symptoms. *Note:* ** Correlation is significant at the 0.01 level

scant evidence for elevated risk in the SLI population. In total almost twice as many young people with SLI, compared to their typically developing peers, were found to have experienced bullying at some point in their lives.

A decrease in bullying experience over time was apparent for both groups of young people overall, and for each degree of bullying, confirming that the developmental pattern described by much existing research (e.g. Pepler *et al.*, 2006) is not limited to a mainstream educational context. However, the positive notion that bullying incidence decreases with increasing maturity is overshadowed by the finding that 13 per cent of young people with SLI have experienced bullying which persisted over time from past to present. Analysis confirmed that the risk of persistent bullying is significantly greater for young people with SLI with only 2.4 per cent of the TD cohort sharing comparable experience. It is reasonable to suggest that the negative impact may be compounded in cases of long-term bullying.

Predictors of bullying at 16 years

It is interesting that the defining differences between the two groups, language and literacy ability, were not found to significantly contribute to the variance in the linear regression models predictive of bullying experience at 16 years. Thus the co-existence of other differentials characteristic of the SLI population contributed to elevated vulnerability of the group as a whole.

Previous research literature exploring risk factors of being bullied often place heavy emphasis on the role of friendships and social functioning (e.g. Salmivalli, Huttenun & Lagerspetz, 1997) even specifically above verbal ability (Hugh-Jones & Smith, 1999), and the strong association between low levels of competency in these areas and an increase in the likelihood of being bullied. Smith (2004) describes Card's (2003) meta-analytic review of victim correlates in 205 studies, which revealed peer rejection, poor friendship quality, low number of friends and low peer acceptance to be among the variables

with the largest effect sizes. This evidence, when considered in association with a general consensus that young people with SLI commonly exhibit impaired social functioning and peer difficulties (e.g. Bishop, 1997; Brinton & Fujiki, 1999; Rice, 1993) appear to place young people with SLI in a very vulnerable position indeed. Yet, this supposition is not borne out in the results of the present study. Neither friendships nor prosocial behaviour were found to make any significant contribution to the prediction of bullying at 16 years. The sole variable able to predict bullying, observed in the regression analysis applied to the SLI sample, was the SDQ Total Difficulties measure of behavioural/social-emotional problems. This supports the findings of Wolke *et al.* (2000) who found significant associations between children involved in bullying (bully/victims and victims), and higher scores on the SDQ Total Difficulties measure, than children with no bullying experiences. Boulton & Smith (1994) and Kumpulainen *et al.* (1998) are among others to further substantiate the notion that hyperactive, inappropriate externalising behaviours are common characteristics of victims of bullying and indeed children and young people with the role of both bully and victim, with the suggestion that such behavioural difficulties provoke negative bullying behaviours from other children.

Associated factors: Anxiety and depression

Anxiety and depression symptoms were both found to be significantly correlated with bullying in the SLI group only. This is an interesting finding as the previous literature describing victims of bullying may give rise to an expectation of this association for all young people (e.g. Craig, 1998). The fact that our findings are more evident in young people with SLI suggests that this is perhaps a more marked association in young people with communication problems. Indeed, the research literature has described a typical bullying victim as quiet, withdrawn, lonely and immature with poor communication skills

(McClure & Sirataki, 1989; Olweus, 1999). Further research in this area is needed to clarify the nature of the aforementioned associations and the potential contributing factor that poor communication skills may play.

Implications for future research

A number of important issues have been brought to the fore by the present study and provide scope for future research possibilities. Firstly, the factors found by the present data to be associated with elevated levels of bullying in young people with SLI, either predictive or concurrent, indicate the co-existence of externalising and internalising psychological disorders. The direction of their development in relation to bullying cannot be determined within the remit of this study. West & Salmon (2000) report personal communication with Hawker & Boulton in which a transactional relationship between victimisation and psychosocial maladjustment is proposed. In this cycle, bullying experiences result in depressed mood, which leads to inappropriate social behaviour, further provoking bullying of the victim. Craig (1998) also described a negative cyclic relationship between anxiety and victimisation whereby the anxiety experienced by victims would lower self-esteem and develop depressive symptoms, further reinforcing the bullying behaviour directed towards them. However, these models do not account specifically for the population of

young people with SLI, for whom increased rates of behavioural difficulties have already been identified (Botting & Conti-Ramsden, 2000) outside the context of bullying.

Perhaps the most alarming implication of the present study is that the 'double-jeopardy' scenario described by Mishna (2003) for learning disabled populations is, we would argue, also potentially faced by young people with SLI who have experienced and continue to experience bullying. There is a growing body of literature in both the fields of SLI and bullying, devoted to long-term adult outcomes and it would seem that recent findings in each bear remarkable similarity. In each domain, young people are at risk of poor academic achievement, lower levels of employment, poorer psychosocial adjustment, fewer love relationships and higher rates of psychiatric disorders as they reach adulthood (e.g. Clegg *et al.*, 2005; Fosse & Holen, 2004; Varhama & Bjorkqvist, 2005). The double impact of risk for bullied young people with SLI therefore places considerable importance on the need for continued research in this area. Furthermore, these findings emphasise the continued need for educators and professionals working with young people with SLI to support these young people not only with their academic experiences, but also with the associated difficulties that bullying may bring, such as working in partnership with child and adolescent mental health professionals.

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