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Language impairment and comorbid vulnerabilities among young people in custody

Nathan Hughes [1,2]

Prathiba Chitsabesan [3]

Karen Bryan [4]

Rohan Borschman [2,5]

Nathaniel Swain [5]

Charlotte Lennox [3]

Jennifer Shaw [3]

1. University of Birmingham, UK.

2. Murdoch Children's Research Institute, Australia.

3. University of Manchester, UK.

4. Sheffield Hallam University, UK.

5. University of Melbourne, Australia

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Background: Whilst the prevalence of language and communication difficulties among young people in custody is well established, holistic understanding of the complexity and co-occurrence of additional vulnerabilities among this population are rare.

Methods: 93 young people in a young offenders institution in England were assessed using the Comprehensive Health Assessment Tool, the Test of

Word Knowledge, and a range of additional assessments of communication, cognition and neurodevelopmental difficulties.

Results: 47% of the young people demonstrated an aspect of language skills significantly below the population average, with more than one in four identified as having impairment. Only one in four of those with an impairment had previously accessed speech and language services. Language needs were associated with difficulties with social communication and non-verbal cognition, as well as higher risk of self-harm and substance misuse.

Conclusions: Earlier identification of language difficulties requires routine assessment of young people at risk of engagement in offending behaviour. Where language difficulties are identified, holistic assessments of needs should be undertaken. There is a need for speech and language therapy provision within youth justice services, as well as in other services accessed by young people at risk of engagement in offending.

Keywords: young offenders; language disorder; communication; mental health; assessment.

Word count: 5869

The prevalence of language and communication impairment among offending populations is well documented. Our review of research, from a variety of national contexts, regarding the prevalence of such impairment among incarcerated young people, reported rates of between 60% and 90% (Hughes et al, 2012). Whilst varying greatly depending on the definition of impairment, these rates are disproportionate to comparable prevalence data reported among the general population of young people, which typically range from 7% to 9% (Hughes et al, 2012). Where these needs have been profiled in detail, difficulties in both receptive (understanding) and expressive (putting thoughts into words) domains have been revealed, including limitations in vocabulary, syntactic complexity, narrative skills, figurative and idiomatic language, and pragmatic language (Snow and Woodward, 2016). Receptive language skills have been found to be particularly prevalent among this population (Gregory and Bryan, 2011). However, despite recognition of significant levels of need, language difficulties among young people in the youth justice system appear to be frequently undiagnosed (Snow and Woodward, 2016; Snow and Powell, 2011).

Whilst the significant and disproportionate prevalence of language difficulties is clear, studies among this population rarely provide a holistic representation of the co-occurrence of additional vulnerabilities, such as mental health difficulties, substance misuse, and cognitive or socioemotional functional deficits. This is despite recognition of the high levels of unmet needs related to mental health (Chitsabesan et al, 2006; Teplin et al, 2002), self-harm (Putnins, 2005; Borschmann et al, 2014), and substance use (Degenhardt et

al, 2015; Hammersley et al, 2003) among adolescents in custody. Rates of various forms of neurodisability are also significantly higher among this population (Hughes et al, 2012), including intellectual disability, traumatic brain injury (TBI) and autism spectrum disorder (ASD). Studies of young people with language impairment also reveal comorbidity with mental health difficulties (Im-Bolter and Cohen, 2007), social anxiety (Beitchman et al, 2001), and substance abuse (Beitchman et al, 2001). It is therefore pertinent to consider the range of such vulnerabilities among young people in custody with language difficulties, and to understand whether such needs are more prevalent among these young people.

The present study therefore aims to describe language difficulties among a cohort of young people in a custodial secure facility in England, with the hypothesis that there will be high levels of need, including in relation to expressive and receptive language skills. The study further aims to examine the comorbidities associated with language difficulties, with the hypothesis that those with impairment in any aspect of language are at greater risk of difficulties with social and emotional functioning, self-harm, substance misuse, and neurodisability. The study also aims to examine prior service use regarding language difficulties and comorbid needs, with the hypothesis that those in custody are unlikely to have had their needs previously identified and supported. The results will also be considered in terms of the implications for youth justice policy and practice.

Methods

Design and Participants

The participants in this study were consecutive admissions to a custodial institution for young offenders located in the North West of England. The institution housed male offenders aged 15 to 18, of all offence categories, with a maximum capacity of 440. The young people were either on remand while awaiting the outcome of court procedures or have already received a custodial sentence.

The participants were assessed using the Comprehensive Health Assessment Tool (CHAT; OHRN, 2013): a semi-structured assessment developed to provide standardised health screening for all young people admitted to secure facilities in England (Chitsabesan et al, 2014). The CHAT contains five sections covering a first night immediate risk assessment, physical health, mental health, substance use and neurodisability.

The participants were also assessed using a range of established neurocognitive assessment tools, as detailed below. Data was collected in two stages: firstly a nurse, trained in the use of the tool, completed the mental health, substance use and neurodisability sections of the CHAT. In each case a different clinician then assessed the young person using the other neurocognitive assessment tools. Socio-demographic data and offending history were taken from official records.

The research team gained ethical approval from the National Offender Management Service and the NHS Research Ethics Committee. Written informed consent was obtained from all participants, as well as from parents / carers for those young people under the age of 16 years, or where capacity to provide informed consent was under any doubt.

Measures

Language and communication impairment

The Test of Word Knowledge (TOWK; Wiig and Secord, 1989) was used to assess language difficulties. The TOWK is a norm-referenced structured assessment tool, validated for use with young people aged 5 to 17, with correlation coefficients between 0.57 and 0.74 against recognized ‘gold standard’ assessment tools.

The TOWK includes a range of subtests covering: synonyms, figurative vocabulary use, word definitions, word contexts, receptive vocabulary, expressive vocabulary, word opposites and conjunctions. Combining all subtests provides the TOWK Total Standard Score, reported in this study as ‘overall language skills’. Similar composite and standardized scores are determined for 'expressive language' and 'receptive language'. Each score is standardized to a population mean of 100.

Within this normalized measure, the standard deviation (SD) is 15, with those who score less than 85 (1.0 SD from the mean) considered to have language

skills ‘significantly below average’. However, that criteria has been criticized for leading to over-diagnosis, so in keeping with the recommendations of the review by Spencer et al (2012), in this study those who score 76 or less (1.5 SD from the mean) were considered to have a ‘language impairment’. Clinical observation of language skills by the assessor completing the CHAT were also recorded within the assessment.

Intellectual disability

The Kaufman Brief Intelligence Test Version 2 (KBIT-2; Kaufman and Kaufman, 1990) was used to assess intellectual functioning. In keeping with the contemporary DSM-IV criteria (APA, 1994), intellectual disability was identified by intelligence quotient (IQ) lower than 69. The definition of intellectual disability also requires impairment of adaptive functioning; however, this is not assessed by KBIT-2. Two of the subscales of KBIT-2 were also utilized, measuring verbal cognition and non-verbal cognition. KBIT-2 has demonstrated good reliability (correlation coefficient of 0.93) as well as validity (IQ composite correlation coefficient between 0.76 and 0.84).

Social communication and social cognition

Subscales of the Social Responsiveness Scale (SRS; Constantino, 2002) were used to assess for social communication and social cognition. The SRS can be completed by any adult who is familiar with a young person’s behaviour, and has been assessed as having good validity in screening for ASD in young people (correlation coefficient between 0.75 and 0.91; Constantino, 2002). Subscales are standardized against population means

and reported as percentiles within the general population, with 0 as the lowest score.

Traumatic brain injury

The Rivermead Post Concussion Symptoms Questionnaire (King et al, 1995) was used to assess symptoms following a TBI. This self-report questionnaire has demonstrated test-retest and inter-rater reliability in measuring symptom severity (correlation coefficient between 0.87 and 0.91). It consists of 16 symptoms, each rated on a four-point scale of severity, providing a maximum score of 64, which is then categorised as minimal (0-12); mild (13-24); moderate (25-32) or severe (33+). A score of 25 or above was therefore used to identify young people with moderate to severe symptoms following a TBI.

Mental health and substance abuse

The CHAT mental health section includes clinical assessment of depression, self-harm, anxiety, and psychosis, and is completed by a mental health nurse on all young people admitted to the secure estate within 5 days of admission (Chitsabesan et al, 2014; OHRN, 2013). Information is taken from clinical records, questions to the young person, clinical observation and information from parents or professionals. Only depression and self-harm were prevalent enough to enable analyses. The substance misuse section explores current and past practices, including alcohol and cannabis use, as well as cocaine, amphetamines, ecstasy, and hallucinogens, which were grouped together as ‘other substances’.

Previous access to services

The CHAT includes questions regarding previous access to a range of services, including speech and language therapy (SLT) and specialist education, as well as previous experiences of the care system and youth justice system. This information is obtained through self-report and available clinical records.

Analysis

The data were analyzed using SPSS Version 22. Differences in participant characteristics were calculated using Pearson's chi-square and t-tests. Where the necessary conditions regarding expected counts are not met, inferential statistics are not provided.

Participant characteristics

279 young people were approached to participate in the study, of which 93 consented and completed all assessments. The mean age of this sample was 16.9 years (SD = 0.6, range 15-18), while 90% reported as White British, 2% reported as African-Caribbean and 8% as mixed race. The young people in the sample were not significantly different in age or ethnicity from the population within the custodial institution at the time ($p<0.01$).

Of the young people interviewed, 86% were serving a custodial sentence, with 14% were held on remand; 41% in custody for the first time. Theft (burglary or robberies, 47%) was the most common specific offence type committed by participants. Violent offences were also common (62%), and included

aggravated robbery (31%), assault (26%), sexual offences (3%) and attempted murder (2%). We were unable to obtain comparable information on young people who had not consented to participate in the study so as to confirm whether the sample was representative in these regards.

Results

Levels of language and communication needs

[insert table 1 here]

Details of the language skills of young people in the study are displayed in Table 1. 47% of the sample demonstrated 'overall language skills' significantly below average for their age range. This included 19 young people (20%) who would be considered to have impairment. 30% of young people were assessed to have significantly below average expressive language skills. One in 10 young people demonstrated impairments in expressive language skills. Greater levels of need were apparent in relation to receptive language skills, with 44% of young people found to be significantly below average using the TOWK, with 1 in 4 demonstrating impairment. Twenty-five young people were identified as significantly below average in both expressive and receptive language skills. Only two of those identified as having any form of impairment were also observed by the assessor completing the CHAT as having difficulties understanding the assessment.

Cognition and social communication

[Insert table 2 here]

As shown in table 2, comparison of those assessed as having impairment in language with those who have not demonstrates statistically significant relationships with a range of cognitive skills. In particular, those with identified impairment in overall language skills demonstrated greater difficulties with non-verbal cognition, with an average mean in the 9th percentile against population norms. Similar discrepancies were apparent in relation to verbal cognition, though the levels of need were less and the variance much greater.

Whilst few participants demonstrated levels indicative of traits of ASD, average scores indicated statistically significant relationships between overall language impairment, social cognition and social communication. Difficulties with social communication were apparent among those who demonstrate impairment with receptive language skills, where as social cognition and verbal cognition difficulties were apparent in those with expressive or receptive language difficulties. Difficulties with non-verbal cognition were more apparent among those with expressive language difficulties.

Association with mental health needs and substance use

[Insert table 3 here]

Table 3 highlights associations between language impairment and mental health difficulties and substance use. Those identified as having an overall impairment were more likely to report self-harm, while the relative risk of depression within in this group was four times higher than among those without impairment. However, the low numbers reporting such symptoms prevent the establishment of statistically significant relationships.

The same is true of substance use. The use of cannabis, alcohol and other substances (cocaine, amphetamines, ecstasy, hallucinogens) was notably higher, though only with alcohol use is a statistically significant relationship identified.

Associations with neurodisability

[Insert Table 4 here]

Table 4 compares the incidence of language impairments between those screened as having a potential neurodisability with those without such a diagnosis. It demonstrates a clear relationship between intellectual disability and language impairment. Patterns in relation to TBI are less clear and require further data collection. Among those screened as having any potential neurodisability, there is not a statistically significant greater likelihood of also having impairment in receptive, expressive or overall language skills. This suggests that, for many within this population, language needs are not explained by other developmental difficulties.

Previous access to services and support

[**Insert table 5 here]**

Among the 26 young people identified as having impairment in overall, receptive or expressive language skills, only 7 had previously accessed SLT. This means that over 70% of those with an identified impairment had not accessed this type of support.

This is despite multiple opportunities for these impairments to be identified and supported. Over 40% of the young people with an identified impairment had been in the care system, with the same proportion having previously been in custody. Over half attended a 'specialist (non-mainstream) school', while three quarters had been excluded from school.

Discussion

Assessments utilizing the TOWK have confirmed the high incidence of language impairment among young people in custody, and have identified the breadth and complexity of difficulties among many of those with such needs. Concerns with speech, language or communication were raised in nearly half of the assessments undertaken. This includes nearly 30% of the young people in custody being identified as having levels of need that indicate impairment in an aspect of their language skills. Receptive language difficulties are particularly prevalent, with approximately one in four

demonstrating impairment and over 40% having skills significantly below the population norm for their age.

Despite high levels of need, previous access to specialist speech and language services is severely limited among this group, with only one in four of those with an impairment having accessed speech and language therapy. The pathways through various services that all of these young people have experienced indicates a lack of identification of, or response to such needs at multiple points of interface with health, social care and education services, as well as with the criminal justice system, including previous experiences of custody. This would suggest multiple missed opportunities to identify and respond to language needs. In particular, difficulties with engagement in the education system provide a key marker for identification, with three quarters of those with an identified impairment having been excluded from school.

This data supports evidence that language difficulties may be overlooked when behavioural difficulties are seen as the predominant issue (Beitchman et al. 2001; Gregory and Bryan, 2011). This is particularly apparent within schools, where language difficulties appear prone to being overshadowed by concern with behaviour (Bryan et al 2015; Law et al., 2013) and problem behaviour and educational disengagement can serve as a means to disguise difficulties in the classroom (Snow and Powell, 2012; Beitchman et al. 2001).

Receptive language difficulties make children particularly vulnerable in relation to education (Hooper et al. 2003). Within the present study it is

noticeable that, despite high levels of receptive language difficulties identified by the TOWK, only two young people were observed to be having difficulty understanding the assessor undertaking the CHAT. This indicates the particular challenge in identifying such needs using objective skills alone, even for trained professionals. Those undertaking the assessments within this study are likely to be in keeping with the level of expertise of professionals assessing language skills within other services. The lack of identification of receptive language difficulties through observation demonstrates the need for further training of professionals, as well as the routine use of established formal tests, such as the TOWK, in order to identify such difficulties.

Challenges in identifying language impairment exacerbate the impact of such difficulties when within the youth justice system. Contact with the youth justice system exposes young people to a range of experiences that draw heavily on expressive and receptive language skills (Anderson et al, 2016, Bryan et al, 2007; LaVigne and van Rybroek, 2011). For example, the forensic interviewing techniques applied by the police and in court rely on an ability to tell one's story in a non-chronological manner, while formal court procedures employ a range of complex technical language. Poor comprehension or an inability to effectively represent oneself can therefore impact upon access to justice. Furthermore, if the underlying cause of an inability to effectively engage is not understood, monosyllabic responses and poor body language 'may be mistaken for deliberate rudeness and willful non-compliance when being interviewed by police or cross-examined in court' (Snow and Powell, 2011: 482), and therefore interpreted as behavioural and attitudinal.

A lack of identification of language and communication difficulties will also limit the effectiveness of youth justice interventions, which tend to assume typical levels of verbal and cognitive competence (Snow and Powell, 2011). Those with language difficulties may struggle to engage with 'talking therapies'. Attempts to address offending behaviour or support rehabilitation are therefore less likely to be effective with this group, increasing risk of future offending. This is reflected in the high frequency of previous custodial interventions among those with language impairment.

The lack of identification of language difficulties within the youth justice system is in contradiction to the increased recognition of the direct relevance of language skills to some patterns of offending behaviour. For example, poor expressive skills can result in the use of non-verbal communication techniques as a means to demonstrate feelings or avoid the use of language, including challenging behaviour (Ryan et al., 2013). Communication difficulties have also been shown to negatively influence peer relationships, increasing vulnerability to associations with those involved in criminal behaviour (Fujiki et al. 1999) and risk of engaging in offending under negative peer influence due to a desire to be accepted (Botting and Conti-Ramsden, 2000). Recognition of such difficulties may therefore be crucial to the prevention of future offending.

Language impairments were associated with difficulties with social communication and non-verbal cognition. What's more, reliance on self-report

of these difficulties may mean that those with language impairment are under-reporting such needs, given complexities in the understanding of concepts or questions, potential difficulties with self-reflection, and a known reluctance among young offenders to admit to particular problems (Bryan et al, 2007). An understanding of comorbidity of functional difficulties is also of particular relevance to youth justice contexts given that these needs are known risk factors for offending. For example, social communication difficulties can lead to the misinterpretation of social cues, leading to inappropriate responses, including reactive aggression in contexts of hostility (Brownlie et al, 2004; Snow and Powell, 2011). Identifying and addressing these factors may therefore also be crucial to preventing future offending.

The comprehensiveness of the assessments in this study has enabled a rare understanding of the complexity of need among those with language difficulties. Language impairment is associated with greater risk of self-harm and substance misuse. This may reflect shared risk factors or indicate secondary difficulties resulting from language impairment, for example, due to an inability to effectively communicate feelings to others (Conti-Ramsden, et al, 2013). Whilst our data does not provide any explanation of causal relationships, it does demonstrate a need for comprehensive assessments of health behaviours and social functioning, where language difficulties are identified. Language impairment may therefore be an indicator of the need for further support.

Again, reporting of such difficulties may be problematic for those with language difficulties, as illustrated by lower reported usage of cocaine, amphetamines and other drugs than reported elsewhere (Hammersely et al, 2003). However, rates of depression (Chitsabesan et al, 2006) and alcohol and cannabis use (Hammersley et al, 2003) among this cohort are similar to levels reported in other studies of this population within the UK.

Deficits in language skills may also lead to difficulties in engaging with support in relation to these needs. For example, it is apparent that the delivery of psychotherapy interventions may need to be adapted, having not typically been designed to support those with comorbid language impairment and socio-emotional functioning or mental health difficulties (Cohen, 2001). Cognitive behaviour therapies may need to focus more on behaviour interventions than cognitive skills, and delivery may need to be adapted by simplifying language or presenting information visually (Kingery et al, 2006). Again, without clear diagnosis of these difficulties, this may not occur.

Limitations

There are several limitations to our study. The sample size is at times too small to provide sufficient power to determine statistically significant correlations. This is the result of a necessary balance between sample size and the comprehensive nature of the battery of tests used. The sample is also restricted to males, and has insufficient numbers of young people of minority ethnic groups to enable meaningful comparison. In addition, the study was undertaken in just one institution, potentially limiting generalisability.

Similarly, we are also aware that the nature of the study may have discouraged some of those with language impairment from participating, knowing they would be required to undertake a series of assessments and engage in complex conversation. This is perhaps reflected in the lower levels of impairment reported here than in similar cohorts.

As noted above, there is also potential for underreporting of difficulties. Whilst there is a lack of research to confirm whether such symptoms may be underreported among those with language difficulties, this phenomenon is well established in relation to adolescents with ADHD. Numerous studies have suggested underreporting of difficulties related to cognition, executive functioning and memory, with various hypotheses suggested, including poor self-awareness of one's difficulties, challenges engaging with assessment tools, and concern with perceived stigmatization or maintaining one's self-esteem (Sibley et al, 2017).

Conclusion

There is growing awareness of the high rates of language impairment in young people entering the criminal justice system. However, studies examining comorbid needs, including mental health, social cognition and communication, and other neurodevelopmental difficulties, are still limited. This study has highlighted the prevalence, of language difficulties among young people in custody, as well as the complexity and variety of additional needs faced by those with language impairment.

This recognition implies a need for earlier identification of language difficulties through routine assessment of young people at risk of engagement in offending behaviour. Given what is known about pathways into offending and through the criminal justice system, this should include assessment of language skills at various points, including: among children struggling to read; when behavioural problems or difficulties in engaging with other children are first emergent; when a child is at risk of exclusion from school or entry into a pupil referral unit; when mental health difficulties are apparent; on first contact with the criminal justice system; and in planning interventions following a conviction. In particular, greater concern for the identification of receptive language skills is needed, given the apparent challenges in observing such difficulties.

Earlier identification enables earlier and more appropriate intervention, prior to disengagement in school and engagement in offending behaviour. It is also crucial to youth justice interventions. Only after assessment can appropriate support be implemented, given the need to take account of language skills in order to successfully engage a young person in what are typically verbally mediated criminal justice interventions.

Identification of language difficulties also enables the comprehensive assessment necessary to identify and address other potential vulnerabilities. This includes associated functional difficulties that may influence offending

behaviour, as well as difficulties related to mental health and substance use, to which those with language impairment appear particularly vulnerable.

This implies a significantly greater role for SLT within youth justice services, including in custodial institutions and community youth offending teams, as well as within those services that potential serious or persistent offenders may access, including drug services and pupil referral units. There is evidence to suggest that the provision of SLT within the youth justice system effectively supports community (Gregory and Bryan, 2011) and custodial interventions (Bryan and Gregory, 2013; Snow and Woodward, 2016), including by enabling more effective communication between young people and other youth justice professionals. Given high rates of re-offending within youth justice systems, it is timely to consider how to address a young person's ability to understand and communicate in order to more effectively engage with measures to prevent offending.

Correspondence to: Dr Nathan Hughes, School of Social Policy, University of Birmingham, Edgbaston, Birmingham, B15 2TT. T: +441214142881. E: n.j.hughes@bham.ac.uk.

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Key points:

- There are high levels of language and communication impairment among young people in the youth justice system, much of which seems to be previously unidentified and unsupported.
- Many of these young people experience comorbid vulnerabilities in social communication, non-verbal cognition, self-harm, and substance misuse.
- Earlier identification of language difficulties requires routine assessment of young people at risk of engagement in offending behaviour.
- There is a need for speech and language therapy provision within youth justice services, as well as in other services accessed by young people at risk of engagement in offending.

Table 1. Levels of language needs identified by the TOWK

	Significantly below average		Impaired	
TOWK Composite Measure	Number	Percentage	Number	Percentage
Overall language skills	38	41	19	20
Expressive language skills	28	30	9	10
Receptive language skills	41	44	22	24
Any of the above skills	44	47	26	28

Notes. Significantly below average is indicated by a standardized score less than 84. Impairment indicated by standardized score less than 77.

Table 2. Mean scores regarding cognition and social communication compared using t-tests. Social communication and social cognition assessed using SRS and presented as t scores. Verbal and non-verbal cognition assessed using KBIT-2 and presented as percentile rank.

	Overall language skills			Receptive language			Expressive language		
	Impaired	Not impaired	t (91)	Impaired	Not impaired	t (91)	Impaired	Not impaired	t (91)
Social communication	52.1 (5.5)	45.7 (8.1)	-4.1**	52.1 (8.1)	45.4 (5.2)	4.6**	49.8 (9.0)	46.7 (6.3)	1.3
Social cognition	49.2 (8.0)	40.5 (5.1)	-5.9**	48.4 (8.1)	40.4 (4.9)	5.6**	47.8 (8.1)	41.7 (4.9)	2.7
Verbal cognition	26.3 (29.6)	49.3 (29.4)	3.0**	10.4 (8.1)	31.6 (24.4)	-4.0**	9.2 (8.8)	28.5 (23.8)	-2.4
Non-verbal cognition	8.6 (7.2)	31.2 (23.4)	4.1**	38.2 (34.2)	46.6 (29.5)	-1.1	22.8 (27.2)	47.0 (30.3)	-2.3

Notes. Impairment indicated by standardized score less than 77. Standard deviations appear in parentheses below means. ** = $p < .01$.

Table 3. Comparison of mental health by language impairment. Chi square tests undertaken where expected counts are sufficient.

	Overall language skills			Receptive language			Expressive language		
	Impaired	Not impaired	χ^2 (1)	Impaired	Not impaired	χ^2 (1)	Impaired	Not impaired	χ^2 (1)
Depression	3	3	−	3	3	−	0	6	−
	(17)	(4)		(14)	(4)		(0)	(7)	−
Self harm	10	18	6.27*	11	17	5.78*	5	23	−
	(56)	(25)		(52)	(25)		(56)	(28)	−
Alcohol use	16	38	7.82**	16	38	2.99	9	45	−
	(89)	(53)		(76)	(53)		(100)	(56)	−
Cannabis use	17	59	1.71	18	58	0.03	9	67	−
	(94)	(82)		(86)	(84)		(100)	(88)	−
Other substance use	8	20	1.87	9	19	1.76	4	24	−
	(44)	(28)		(43)	(28)		(44)	(30)	−

Notes. Impairment indicated by standardized score less than 77. Percentages appear in parentheses below count. − indicates insufficient expected counts to perform chi square test. * = $p < 0.05$. ** = $p < .01$.

Table 4. Levels of language impairment among young people with neurodisability. Chi square tests undertaken where expected counts are sufficient.

	Overall language skills			Receptive language			Expressive language		
	Impaired	Not impaired	χ^2 (1)	Impaired	Not impaired	χ^2 (1)	Impaired	Not impaired	χ^2 (1)
Intellectual disability	15 (36)	4 (8)	11.01**	13 (31)	9 (18)	2.26	8 (19)	1 (2)	− −
TBI	18 (23)	1 (7)	1.79	3 (22)	19 (24)	0.05	1 (8)	8 (10)	− −

Notes. Impairment indicated by standardized score less than 77. Percentages appear in parentheses below count. − indicates insufficient expected counts to perform chi square test. * = $p < 0.05$. ** = $p < .01$.

Table 5. Previous service provision among those with impairment in overall language skills, receptive skills or expressive skills (N=26)

	Number	Percentage
Received speech and language therapy	7	27
Attended a specialist (non-mainstream) school	14	54
Previously been in youth justice custody	11	44
Previously been in the care system	11	44
Been excluded from school	19	76