

# Translation into British Sign Language and validation of the Strengths and Difficulties Questionnaire

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## Scientific summary

### BSL and validation of the SDQ

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# Scientific summary

## Background

Deaf children and young people are found to have significantly higher rates of emotional/behavioural problems than the hearing population when assessed using assessments and questionnaires developed for hearing children. However, the statistics may not portray an accurate picture, as the assessments and questionnaires are designed for hearing children. These screening tools have not been validated for deaf children. Clinical experience indicates higher levels of mental health difficulties in deaf children. They are also less likely to receive help, and many parents believe that mental health services are not well equipped to support deaf children and young people. In 2009, a new national deaf service for children and adolescents was set up to address this need. Up until now there has been no tool to screen deaf young people for mental health problems if their preferred language is British Sign Language (BSL), nor are we able to evaluate whether or not the service provides positive outcomes for clients. Previous screening and epidemiological studies in deaf children have had to use interviews and reliance on parent/teacher report instead of youth self-report, as researchers have suggested that written versions of questionnaires for deaf children are not as sensitive as they are for hearing children.

Ideally, any evaluation of deaf services should be comparable with those of services for hearing children, but the lack of suitable self-report screening or evaluation tools prevents this. It is now recognised that questionnaires cannot simply be translated linguistically, but also need to be adapted culturally to maintain their content validity. This is particularly important for BSL because it is a visual and not a written language. It is not sufficient simply to have an interpreter present, as this would not be true self-report and the translator may change the meaning of the original question so that the content validity is reduced. There are currently no suitable screening questionnaires for the young deaf signing population.

The Strengths and Difficulties Questionnaire (SDQ) is used as an outcome measure in the national Child and Adolescent Mental Health Services (CAMHS) Outcome Research Consortium, and has been translated into over 60 languages, across various cultures, but not BSL. It is a self-report questionnaire, initially developed to improve the detection of child psychiatric disorders in the community. There are three versions: one for children and young people, one for parents and one for teachers. Together, the three written English SDQs show good sensitivity (63.3%) and specificity (94.6%). The SDQ can be completed at the beginning and end of treatment to assess how well the treatment has worked, and is frequently used to evaluate CAMHS.

## Objectives

1. To translate the SDQ into BSL.
2. To use the BSL version of the translated self-report SDQ with a cohort of BSL-using deaf children sampled across England, and to validate it by comparing it with a gold standard clinical interview assessment.
3. To validate deaf parent and deaf teacher versions of the SDQ reporting on children by comparing it with a gold standard clinical interview assessment.

## Methods

We used a methodologically thorough translation and back-translation process with six bilingual adults in two teams of three to translate the English SDQs. We checked final versions with focus groups of deaf young people and deaf adults, with an expert group and with the original author. We had strong public and patient involvement as part of the research.

Once they were translated we validated the BSL SDQ versions across England, recruiting from schools, youth clubs, Deaf communities and clinical services for deaf children and young people as well as through national and local advertisements.

## Results

We recruited 144 deaf young people (aged 11–16 years), 191 Deaf parents of children between 4 and 16 years old (the child could be either hearing or deaf) and 77 deaf teachers and teaching assistants. We also recruited hearing participants to aid cross-validation. We found that the test–retest reliability, factor analysis and internal consistency of the three new scales were broadly similar to those of other translated versions of the SDQ. We also found that against independent semistructured clinical interviews by a mental health professional experienced in working with deaf children, working alongside interpreters who had been trained by our service, there was good sensitivity (76%) and specificity (73%) when using the existing multi-informant coding frame for the SDQ. Confirmatory factor analysis (CFA) found that a five-factor solution explained between 48% and 55% of the variance depending on whether it was looking at the young person, parent or teacher version. Exploratory factor analysis (EFA) preferred a two-factor solution that included a strength subscale and a difficulties subscale. This suggests that the BSL SDQ should be used as a general screening tool rather than as an instrument to assess any particular disorders. The BSL SDQ was able to discriminate between a clinical and community sample. Finally, although it was only a relatively small sample, we found a suggestion that deaf 11- to 16-year-old girls in the community sample appeared to have higher scores on all difficulty subscales, and particularly the emotional and total score subscales, than boys.

In summary, we have been able to establish levels of validity for the BSL version of the SDQ which enable it to be used with deaf signing young people, deaf parents or deaf teachers.

## Conclusions

Further research in the deaf population to understand their mental health needs is warranted. This should include using this newly validated instrument. We also recommend that further instruments for deaf children be developed (e.g. for anxiety and depressive disorders).

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