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The Strengths and Difficulties Questionnaire among Finnish school-aged children and adolescents

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Abstract The emotional and behavioural problems of 7- to 15-year-old Finnish children and adolescents ($n = 735$) were assessed in a community population by a brief screening instrument, the Strengths and Difficulties Questionnaire (SDQ). The parent-, teacher- and self-reports of the SDQ were obtained. The results show that for the total scores, the inter-rater agreement between the pairs of reports was 0.38–0.44. The internal consistency in all three questionnaires was 0.71. Functioning above the 90th percentile of the SDQ total difficulties scores in parent-, teacher- and self-reports was strongly associated with help-seeking variables and problematic

behaviour according to parents. The correlation of the parental SDQ total scores and the Child Behaviour Checklist total scores was 0.75 and the correlation of the self-report SDQ total scores with the Youth Self Report total scores was 0.71. The differences in sex, grade and informants of the SDQ total difficulties scores are reported. The study gives further evidence of the usefulness of the SDQ as a promising screening instrument for epidemiological research and clinical purposes.

Key words The Strengths and Difficulties Questionnaire – screening – pathology – child and adolescent psychiatry

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Introduction

In psychological and psychiatric research and clinical work with children and adolescents there is a need for validated instruments to screen their emotional and behavioural problems. The Strengths and Difficulties Questionnaire (SDQ) is a brief behavioural screening instrument for these purposes developed by Goodman (10–13). This paper describes the use of the SDQ in the community study of Finnish school-aged children and adolescents. Using the same assessment instruments is valuable when repeating and comparing different studies and also in clinical communication across various countries (6, 24).

The Rutter questionnaires for screening children's emotional and behavioural problems were developed in the 1960s. Since then they have been widely used and

their reliability and validity have been well documented (8, 19, 20). However, many areas of interest in child psychology and psychiatry today are not well covered by them. Furthermore, all items on the Rutter questionnaires are about negative traits. Goodman (9) started by trying to expand the Rutter questionnaires with items about children's strengths before generating a new questionnaire, the SDQ (10).

While the Rutter questionnaires can be completed only by parents and teachers, different versions for different informants, including a self-report version, are available in a more recent set of questionnaires developed by Achenbach. The Child Behavior Checklist (CBCL) is a standardised measure of child behavioural problems for parents, the Teachers' Report Form (TRF) for teachers and the Youth Self Report (YSR) for the children and adolescents themselves (1–3). They are among the most

commonly used epidemiological instruments in present day research of children's and adolescents' emotional and behavioural problems. The CBCL and the YSR are designed to collect data on a wide variety of behaviours that are of clinical concern. Although the CBCL is substantially longer and therefore more time consuming to complete than the Rutter questionnaires, it also has its advantages, e.g. versions for different informants. The validity and reliability of the CBCL and the YSR are well documented internationally, in the USA (1, 3), the Netherlands (27) and Finland (7).

The Strengths and Difficulties Questionnaire (SDQ) is a brief behavioural screening instrument containing 25 attributes, which concern both positive and negative behavioural traits. As Goodman (10, 11) pointed out, the design of the SDQ has the following advantages: it fits easily on one page; it is applicable to children and adolescents ranging from 4 to 16 years; the same version can be completed by parents and teachers; a similar version is available for self-report; both strengths and difficulties are well represented; and there is an equal number of items on each relevant dimension, namely, conduct problems, emotional symptoms, hyperactivity, peer relationships and prosocial behaviour.

The reliability and validity of the SDQ have been investigated since 1997 in the United Kingdom by Goodman and his colleagues (10–13), but to our knowledge, only a few studies outside the UK have been published. In Sweden, Smedje et al. (22) found that the psychometric properties of the parent-report SDQ were adequate and confirmed the postulated factor structure. Furthermore, the results of the German study (14) showed that the parent- and self-rated SDQ and CBCL/YSR were highly correlated and equally able to distinguish between community and clinic samples.

The aim of the present study was to describe the use of the SDQ in a Finnish community population of 7- to 16-year-old school-aged children and adolescents. Our aim was to report the age and gender differences and the cross-informant agreement between parent-, teacher- and self-report versions of the SDQ. The aim was also to shed some light on whether parent-, teacher- and self-report total difficulties scores of the SDQ differentiate children with problematic behaviour. In addition, we conducted another study with a different population of adolescents to determine correlations between the CBCL, the YSR and the SDQ total scores and subscores.

Material and methods

Subjects

Study 1 was conducted during April 1998. It included all the children and adolescents who were living in two suburban/rural municipalities, Laitila and Pyhäranta

(total population 11 200) in south-west Finland and who were attending 1st, 3rd and 5th grades of primary school and 7th and 9th grades of secondary school. Only severely mentally retarded children were excluded from the study.

The parental version of the SDQ was sent to be completed at home for the whole sample (1, 3, 5, 7 and 9th graders; $n = 735$). The SDQ self-report was filled in by the 3rd, 5th, 7th and 9th graders ($n = 601$) in the classroom. The SDQ teacher-report was filled in by the teachers of the children attending 1st, 3rd and 5th grades ($n = 418$). The teachers of the secondary school were asked to take part in the study but they refused because they thought they were not well enough informed about the children's behaviour to fill in the questionnaires.

The parents of the children in primary and secondary school filled in the SDQ. Of the parent-report SDQ, 96% were completed (703/735) and included in the statistical analysis. Of the children and adolescents, 89% (534/601) had permission from their parents to participate in the study and 99% of these (528/534) completed the self-report appropriately. The teachers of one primary school with 33 pupils refused to participate in the study and nine more children did not have permission to participate, but all the other teacher-reports (376) at the primary schools were completed and included in the statistical analysis.

The mean age of the children in the 1st grade was 7.8 years (sd 0.4), in the 3rd grade 9.9 years (sd 0.3), in the 5th grade 11.9 years (sd 0.4), in the 7th grade 13.8 years (sd 0.3) and in the 9th grade 15.8 years (sd 0.4). Of the children, 48% were boys and 52% girls. Boys and girls were evenly distributed across the grades and the two municipalities.

Study 2 was conducted in November 1998. It included all the pupils who were in the 9th grade in Laitila and Pyhäranta. The adolescents completed both the SDQ self-rated version and the YSR problem items anonymously during a school lesson. The response rate was 94% (129/137). Eight questionnaires had to be excluded because the pupils were absent on the relevant days or the questionnaires were inappropriately completed. The SDQ informant-rated version and the CBCL problem items were sent to all parents of adolescents attending the 9th grade. The parents also completed the questionnaires anonymously. Of the parents, 59% (81/137) returned both questionnaires appropriately completed.

Measures

The Strengths and Difficulties Questionnaire (10, 12) includes 25 items scored 0 for "not true", 1 for "somewhat true" and 2 for "certainly true". Five items are worded positively and scored in the opposite

direction (2 for “not true” etc.) The 25 SDQ items are divided into 5 scales of 5 items: the hyperactivity scale, emotional symptoms scale, conduct problem scale, peer problem scale and prosocial scale. The scores of hyperactivity, emotional symptoms, conduct problems and peer problems can be summed to generate a total difficulty score ranging from 0 to 40. The prosocial scale gives a score for positive prosocial behaviour (10) and this sum is not included in the total difficulties score. The questionnaire was carefully translated into Finnish and back-translated. In the present study, the cut-off point for clinical range (above 90th percentile for the SDQ total scores) was used as recommended by Goodman (10).

The informant-rated version of the SDQ can be completed by either parents or teachers of children and teenagers aged between 4 and 16. This informant-rated version has recently been shown to function as well as the Rutter questionnaires, while offering the additional advantages described above (10). There is also evidence that the parent-rated SDQ correlates highly with the CBCL despite being much quicker to complete (13).

The self-report version of the SDQ is designed for self-completion by children and adolescents aged between 11 and 16. The 25 items cover the same attributes as the informant-rated SDQ. For most items, the only difference between the informant-rated and the self-rated version is a grammatical change from the third person to the first person. Since the informant-report version was designed for use with children as young as four, some of the items were not suitable for teenagers and the wording of the self-report version was modified accordingly (12). The Child Behavior Checklist (CBCL) is a parent-report questionnaire (1). It consists of 118 behaviour items, each scored on a three-point scale. This gives a total behaviour problem score and two broad subscales, externalising and internalising. The externalising score includes problems such as aggressive and delinquent behaviour, while the internalising scale includes anxiety, depression, withdrawal and somatising. In addition to these two scales, the total problem score includes attention, social and thought problems. The CBCL also includes a social competence scale, which was not used in this study. The Youth Self Report (YSR) is a self-report version for teenagers aged between 11 and 18 years (3). It has the same structure as the CBCL, apart of being worded in the first person.

The help-seeking variables in the present study are (a) use of child mental health services according to parent. The parents were asked: “Have you considered use of child mental health services for examination or treatment because of the child’s emotional or behavioural problems.” The parents selected from three alternatives: “No” was rated 0, “we have considered” was rated 1 and “we have used” was rated 2. An additional item (b) asked the parent’s view of whether the child has significant emotional or behavioural difficulties (11):

“Overall do you think that your child has difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get along with other people?” The parents selected the appropriate statement on a scale from 0 to 3. The answer “no difficulties” was rated 0, “minor difficulties” was rated 1, “definite difficulties” was rated 2 and “severe difficulties” was rated 3. In the statistical analysis of the present study the child was defined as having problematic behaviour if the parent rating was 1–3.

Statistical methods

The differences in sex, age and informants of the SDQ total difficulty scores and the subscores were analysed with repeated measures analysis of variance. The inter-rater agreement between parent, teacher and self-report of the SDQ total difficulty scores and subscores, and the concurrent validity between the SDQ and the CBCL/YSR were analysed with Pearson’s correlation coefficient. The internal consistency of different SDQ scales was analysed with Cronbach’s alpha coefficient. The association between help-seeking variables and explanatory variables was analysed with univariate logistic regression analysis. For explanatory variables, odds ratios (OR) and 95% confidence intervals (95% CI) were calculated. A p-value of 0.05 was interpreted as significant. The statistical analyses were carried out using the SAS system for Windows, release 6.12/1996.

Results

Differences in sex, grade and informants of the SDQ scores

Table 1 shows the means and standard deviations of the SDQ total difficulty scores rated by children and adolescents, parents and teachers. The comparisons were made between the parent/self-reports (grades 3, 5, 7 and 9), between the parent/teacher-reports (grades 1, 3 and 5) and between the teacher/self-reports (grades 3 and 5). The grades included in the analyses vary because the self-reports were not obtained from the children in the 1st grade and the teachers in the secondary school did not take part in the study. The differences in sex and informant and interaction of sex x informant were analysed with the repeated measures analysis of variance. In the comparison of the parent/self-reports the effect of age was also analysed, grouping the grades into primary (grades 3, 5) and secondary (grades 7, 9) school.

When the results of the parent- and self-reports were compared, the effects of grade and informant were independently significant ($p < 0.05$). These results indicate that the children and adolescents rated higher total

Table 1 The means and standard deviations of the SDQ total difficulty scores rated by children and adolescents, parents and teachers

Grades Sex	Primary school		Secondary school	
	Boys Mean (sd)	Girls Mean (sd)	Boys Mean (sd)	Girls Mean (sd)
Self-report (n = 528)	9.6 (5.4)	8.3 (6.0)	7.5 (5.1)	7.0 (4.5)
Parent-report (n = 703)	6.7 (4.4)	6.2 (4.7)	5.3 (3.9)	5.3 (4.9)
Teacher-report (n = 376)	7.8 (6.3)	4.8 (5.5)		

difficulty scores than their parents, and that the primary school children had higher total difficulty scores than the adolescents in the secondary school. There were no effects of sex or interaction. When the results of teacher- and self-reports of the primary school children were compared, the effect of sex was significant ($p < 0.001$). Boys had higher total difficulty scores than girls by both informants. There were no significant informant or interaction effects.

When the parent- and the teacher-reports of the primary school children were compared, the effects of sex, informant and sex x informant interaction were significant ($p < 0.001$). The teachers rated higher total difficulty scores for boys and lower total difficulty scores for girls than the parents. It is worth mentioning here briefly that we looked further into the reason for this by examining the subscores of the SDQ parent- and teacher-reports. Significant differences were found in three subscales. For the hyperactivity, effects of sex, informant and their interaction were significant ($p < 0.01$) indicating that the teachers were more likely to notice hyperactivity in boys than the parents. The teacher-reported mean (sd) for the boys was 3.3 (2.7) and for the girls 1.5 (1.9), compared with 2.6 (2.0) and 1.9 (1.7), respectively, in the parent-reports. For the conduct problems, effects of sex and sex x informant interaction were significant ($p < 0.05$). The teachers were less likely to notice conduct problems in girls than the parents. The mean (sd) for the boys was 1.2 (1.8) and for the girls 0.5 (1.1), compared with the parent-reported mean for the boys, 1.2 (1.3) and for the girls, 1.1 (1.2). However, the results for the prosocial behaviour were converse. Effects of sex, informant and their interaction were significant ($p < 0.05$) indicating that the teachers were more likely than the parents to rate girls functioning higher on prosocial behaviour than boys. The mean (sd) for the boys was 6.9 (2.8) and for the girls 8.6 (1.8) compared with the parent-reported mean for the boys, 7.4 (1.6) and for the girls, 8.2 (1.6). No significant differences were found on the emotional symptoms and peer problems scores.

Inter-rater agreement

The inter-rater agreement for parent-, teacher- and self-reports were analysed with Pearson's correlation coefficient (Table 2). The correlation of the SDQ total difficulty scores between self-reports and parent-reports was 0.40, the correlation of total scores between self-reports and teacher-reports was 0.38, and the correlation of total scores between parent- and teacher-reports was 0.44. The highest intercorrelation ($r = 0.45$) was on the hyperactivity scale between the ratings of parents and teachers. The lowest intercorrelation ($r = 0.25$) was on the emotional symptoms scale between self-reports and teacher-reports.

The children attending the 3rd grade were younger (the mean age was 9.9 years) than the recommended age (11 to 16 years) for using the SDQ self-report (11). Therefore the inter-rater agreement was studied separately in this age group. For the 3rd graders, the correlation of the SDQ total difficulty scores between the self-reports and the parent-reports was 0.39, and between the self-reports and the teacher-reports 0.37. Inter-rater correlations were in the same range as for the older children and, therefore, the 3rd graders were maintained in the statistical analysis.

Internal consistency

The internal consistency of the SDQ total difficulty scores and the different subscales in parent-, teacher- and self-reports was analysed with Cronbach's alpha coefficient (Table 3). Cronbach's alpha for the total scores was in all three informants' reports 0.71, while the range in different subscales was 0.63–0.86. As raters, the teachers had the best internal consistency, the mean level of internal consistency in different subscales being 0.79. The mean of internal consistency of subscales was 0.65 in self-reports and 0.67 in parent-reports. When the subscales were compared, the lowest level of alpha was in the conduct problems subscale.

Table 2 Inter-rater agreement: correlations between self-, parent- and teacher-report of SDQ total difficulty scores and subscores using Pearson's correlation coefficient

Scores	Children/ parents	Children/ teachers	Parents/ teachers
Total	0.40	0.38	0.44
Hyperactivity	0.39	0.34	0.45
Emotional symptoms	0.28	0.25	0.33
Conduct problems	0.28	0.30	0.30
Peer problems	0.39	0.38	0.39
Prosocial scale	0.37	0.28	0.29

All the correlations were significant at level $p < 0.001$

Table 3 Internal consistency reliability of the self-, parent- and teacher-report SDQ total difficulty scores and subscores analysed with Cronbach's coefficient alpha

Scores	Children	Parents	Teachers
Total	0.71	0.71	0.71
Hyperactivity	0.66	0.73	0.85
Emotional symptoms	0.69	0.69	0.79
Conduct problems	0.57	0.59	0.72
Peer problems	0.63	0.64	0.73
Prosocial scale	0.69	0.68	0.86
Mean of subscores	0.65	0.67	0.79

Help-seeking variables

The association between sex, grade and functioning within clinical range (>90th percentile) in the SDQ parent-, teacher- and self-reports, and having problematic behaviour according to parent (148/665, 22%), was studied with univariate logistic regression analysis. As shown in Table 4 scoring above the 90th percentile (clinical range) was strongly associated with problematic behaviour according to parent in parent- (OR 10.0), teacher- (OR 3.2) and self-reports (OR 4.4).

The parents were also asked if they had used or considered using mental health services because of their children's problems. Unfortunately, only 60% of the parents (419/703) gave an answer for this item. Of these children, 16 had used and in 10 cases, their parents had considered using mental health services for the children (6.2% of the sample). When analysed with univariate

Table 4 Associations between sex, grade, SDQ total scores of self-, parent- and teacher-reports and children/adolescents having minor or definite problems according to parent-report. Analyses were performed with univariate logistic regression analysis

Variable*	n	%	OR	95% CI	p
Sex					0.002
Girls	326	17	1.0		
Boys	339	27	1.8	(1.2–2.6)	
Grade					0.008
7, 9	284	17	1.0		
1, 3, 5	381	26	1.7	(1.1–2.5)	
SDQ self-report					0.001
Normal range	427	20	1.0		
Clinical range	42	52	4.4	(2.3–8.4)	
SDQ parent-report					0.001
Normal range	598	18	1.0		
Clinical range	52	69	10.0	(5.3–18.6)	
SDQ teacher-report					0.004
Normal range	299	24	1.0		
Clinical range	28	50	3.2	(1.5–7.1)	

* n = number of responses; % = percentage of parents reporting minor or definite problems; OR = odds ratio; 95% CI = 95% confidence interval

logistic regression analysis, the clinical range in the parent-report SDQ total difficulties scores of these 26 children was associated with service use or consideration to use them ($p < 0.001$, OR 8.7, 95% CI 3.7–20.7).

Concurrent validity

The concurrent validity was assessed in the second study, comparing the total difficulty scores and the subscores for the corresponding domains of the SDQ and the YSR/CBCL with Pearson's correlation coefficient (Table 5). The correlation of the SDQ self-report and the YSR total scores for all subjects was 0.71; for boys 0.67 and for girls 0.76. The correlation of the parent SDQ and the CBCL total scores for all subjects was 0.75; for boys 0.62 and for girls 0.91. All correlations were significant at the level $p < 0.001$.

Table 5 also shows the correlations between the corresponding subscores in each instrument. For the two parent-reports, the correlations between the subscores were in the range of 0.34–0.70. The highest correlations were between the SDQ hyperactivity and the CBCL attention problems, as well as between the SDQ conduct problems and the CBCL externalising subscores; the latter result owing to the high correlation between the SDQ conduct problem scores and the CBCL aggression scores included in the externalising scale. For the SDQ emotional symptoms, the highest correlation was with the CBCL anxious-depressed scores included in the internalising scale.

For the two self-reports, the correlations between the corresponding subscores were in the range of 0.43–0.68. The highest correlations were between the SDQ conduct problems and the YSR externalising subscales, as well as

Table 5 Correlations between the Strengths and Difficulties Questionnaire (SDQ) parent-reports and the Child Behavior Checklist (CBCL) and between the SDQ self-reports and the Youth Self Report (YSR): total difficulties scores and the corresponding subscores

Scores	Parent-report SDQ/CBCL	Self-report SDQ/YSR
Total/Total	0.75	0.71
Conduct problems/Externalising	0.70	0.68
Conduct problems/Delinquent	0.60	0.60
Conduct problems/Aggressive	0.69	0.64
Hyperactivity/Attention problems	0.67	0.59
Emotional symptoms/Internalising	0.44	0.68
Emotional symptoms/Withdrawn	0.34	0.43
Emotional symptoms/Somatic problems	0.40	0.58
Emotional symptoms/Anxious-depressed	0.44	0.68
Peer problems/Social problems	0.41	0.51

All correlations were significant at level $p < 0.001$

between the SDQ emotional symptoms and the YSR internalising subscales. The SDQ emotional symptoms had the highest correlation with the YSR anxious-depressed scores included in the internalising scale. For both sets of questionnaires, the correlations were lowest between the SDQ emotional symptoms and the YSR withdrawn scores.

Discussion

The aim of the present study was to describe the use of the SDQ in a Finnish community population of 7- to 16-year-old school-aged children. When the psychometric properties of the SDQ were studied, the cross-informant agreement was similar to those of previous studies in the UK (12). The internal consistency of the parent-, teacher- and self-report was satisfactory. Furthermore, the concurrent validity of the SDQ assessed in the second study was also adequate. The means of the SDQ total difficulty scores were somewhat lower in the present study than found in the British studies (10, 12). In the British community sample, the mean of the SDQ self-report total scores for boys was 11.6 (sd 5.4) and for girls 11.2 (sd 5.0). The analysis of the Finnish SDQ total difficulty scores revealed that, as informants, the parents were more cautious in describing their 9- to 16-year-old children's problems compared to the youngsters' self-reports. This is consistent with other studies, when parent-reports and children's and adolescents' self-reports have been compared. The adolescents report more emotional and behavioural problems than their parents do about them (21, 23, 25). In the present study, the younger children (9–11 years old) had more problems than the adolescents (13–16 years old) when rated by the parents and the youngsters themselves. This is also in accordance with many previous results (21, 27).

When the SDQ parent- and teacher-reports of the 9- to 11-year-old children were compared, the teachers reported boys to have more and girls to have less behavioural problems than the parents reported. The teachers were more likely to notice especially externalising problems, i.e. hyperactivity and conduct problems in boys and less likely to notice them in girls than the parents. Although the results of the previous studies vary concerning the differences in the behavioural problems of boys and girls, this is in accordance with some studies. For example, in four out of five comparisons for four different nationalities, teachers scored boys higher than girls in the TRF total problem scores. Most of the TRF items that showed significant sex differences indicated attention problems, as well as delinquent and aggressive behaviour (24).

As a limitation in the present study, all the participating children were living in a suburban/rural area, which may have introduced a bias into the results.

However, in a wide epidemiological study, no significant difference was found between the different types of municipalities, i.e. city, suburban and rural in Finland (18). Contrary to this, in a recent Swedish study (15), children and adolescents living in large cities had more behavioural problems than those living in rural areas. This suggests that in different cultures and in different samples, specific norms adjusted for age and gender should be applied as recommended by Goodman (10, 12).

The results concerning the psychometric properties of the SDQ Finnish versions show that they function well. When the inter-rater agreement was studied between the SDQ total scores of the self-, parent- and teacher-reports, it was moderate (0.38–0.44). Compared to the results in the community sample of the British study (12), the correlations of the total difficulty scores of the SDQ are almost the same. In the present study, the correlations were higher than in the meta-analytic study by Achenbach, McConaughy and Howell (5), which included all types of informants in 119 studies; the mean correlation for parent/self reports was 0.25, for teacher/self reports 0.20, and for parent/teacher reports 0.27. The fact that the SDQ versions for parents and teachers are identical and the SDQ self-report differs only in being in the first person instead of the third, helps to make the results of the three versions correlated better with each other.

The internal consistency of the SDQ Finnish versions of parent-, teacher- and self-reports was satisfactory (0.71 in all versions). The internal consistency of total difficulty scores seems to be rather similar to the results in the British study (12), where the internal consistency of the SDQ self-report total scores was 0.82 and the mean of the internal consistency of the subscores was 0.68. Furthermore, the internal consistency of the parent-rated SDQ in the present study and in the Swedish study (22) are in the same range, the total difficulty scale and the hyperactivity scale having the best and the conduct problems and the peer problems scales having the lowest internal consistency in both studies.

The concurrent validity was measured by comparing the total scores and the subscores of the self- and parent-report SDQ and the Achenbach questionnaires (YSR and CBCL). The correlations between the total scores generated by the parental reports and self-reports in the two instruments were satisfactory, given the great difference in length and in item contents of the two measures. The correlations in the present study were somewhat lower than that found by Goodman and Scott in a recent study (13), where the parent-rated SDQ and the CBCL correlated highly with one another, correlation between the total difficulties scores was 0.87. Furthermore, in Germany Klasen et al. (14) found that the correlations of the total scores between the parent-rated SDQ/the CBCL and the self-rated SDQ/the YSR

were 0.78 and 0.77, respectively, thus being intermediate between the Finnish and British results.

Referral to mental health services has been used as one criterion with which to validate the screening instruments. The actual referral usually means that the problems of the child have been persistent enough to make the parents seek help (4). In the present study we asked the parents if they thought that their child has significant emotional or behavioural difficulties and if they had used or had considered using mental health services because of their child's problems. The SDQ total scores within the 90th percentile clinical range were strongly associated with these help-seeking variables in parent-, teacher- or self-reports. These findings are consistent with the findings by Goodman et al. (12) showing that the SDQ self-reported total difficulty score discriminated between a community sample and a psychiatric sample.

In the present study, the percentage of those parents who reported the use of or their intention to use mental health services for their children was small (6%), including the 4% of parents who reported that they had used mental health services for their child. This

figure is in accordance with the 3–8% reported in previous studies. A very low rate of mental health service use has been found among those children who are at risk of a psychiatric disturbance or who meet the criteria for psychiatric symptoms (16, 17, 26, 28).

The present study gives further evidence of the usefulness of the SDQ as a promising screening instrument for epidemiological research and for clinical purposes. The present study also supports the validity of the SDQ. The SDQ might be chosen, when the clinician or the researcher wants to assess the mental health risks in groups of children and adolescents with a brief and not too time-consuming questionnaire. In clinical use, it might be a good screening instrument in primary healthcare promoting early identification of a psychiatric disorder, e.g. for a general practitioner, a paediatrician or a nurse to assess which children are in need of mental health services.

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