

PRIMARY MENTAL HEALTH CARE MINIMUM DATA SET

Scoring the Strengths and Difficulties Questionnaire

11 OCTOBER 2019

Adapted from Mental Health National Outcomes and Casemix Collection: Overview of clinician-rated and consumer self-report measures, Version 1.50. Department of Health and Ageing, Canberra, 2003 http://www.amhocn.org/publications/mental-health-national-outcomes-and-casemixcollection-overview-clinician-rated-and

Version History

Date	Details		
1 December 2016	Initial Version		
1 September 2018	Updated Version with gender options		
11 October 2019	Individual Version		

Strengths and Difficulties Questionnaire (SDQ)

Extensive support materials are available on the SDQ developers' website, including copies of the various versions of the instrument, background information and scoring instructions. See <u>http://www.sdqinfo.com</u>. There are six Australian versions (parent-report and youth-self report) currently specified for PMHC MDS reporting. These were originally negotiated by New South Wales Health with the SDQ author and copyright holder (Dr Robert Goodman) in 2002, and are also available on the SDQ website. They were first introduced in 2004 for mandatory reporting by state and territory specialised child & adolescent mental health services under the National Outcomes and Casemix Collection.

The "1" versions are administered on admission and are rated on the basis of the proceeding 6 months. The "2" follow up versions are administered on review and discharge and are rated on the basis of the previous 1 month period. The versions specified for PMHC MDS reporting are:

- PC1 Parent Report Measure for Children aged 04-10, Baseline version;
- PC2 Parent Report Measure for Children and Adolescents aged 4-10, Follow up version;
- PY1 Parent Report Measure for Youth aged 11-17, Baseline version;
- PY2 Parent Report Measure for Youth aged 11-17; Follow up version;
- YR1 Youth self report measure (11-17), Baseline version; and
- YR2 Youth self report measure (11-17), Follow up version.

Please note that the item numbering in the SDQ versions is deliberately non sequential because it covers all items in all versions, both to indicate item equivalence across versions and to assist data entry, especially of translated versions. The table below indicates the items that are included in each version, the rating periods used and the broad content covered by each item.

	Informant		Pa	Young Person			
	Age range	4-10 11-17		11-17			
	Application	Baseline	Followup	Baseline	Follow-up	Baseline	Followup
	Rating period	6 months	1 month	6 months	1 month	6 months	1 month
Items	Item Content	Version					
		PC1	PC2	PY1	PY2	YR1	YR2
1-25	Symptoms	\checkmark	✓	✓	✓	✓	✓
26	Overall	✓	✓	✓	✓	✓	√
27	Duration	✓	x	✓	X	✓	
28-33	Impact	\checkmark	✓	\checkmark	✓	\checkmark	√
34-35	Follow up progress	X	✓	X	✓	X	\checkmark
36-38	Cross-Informant information	✓	x	~	x	x	x
39-42	Cross-Informant information	x	x	x	x	✓	x

SDQ items and Scale Summary scores

• The first 25 items in the SDQ comprise 5 scales of 5 items each. It is usually easiest to score all 5 scales before working out the Total Difficulties score. For data entry, the responses to items should always be entered the same way (see below), but they are not all scored the same way. Somewhat True is always scored as 1, but the scoring of Not True and Certainly True varies with each item (see Table 5). For each of the 5 scales the score can range from 0-10 if all 5 items were completed. Scale scores can be prorated if at least 3 items were completed.

Table 1: The individual SDC	Q items and the Total score derived from them.

		Not True	Some- what True	Certainly True	
	Values for Data Entry =======	0	1	2	
Data element	SDQ Item number and description		Item Score		Summary Score
Emotional	Symptoms Scale				0-10
Item 03	Often complains of headaches,	0	1	2	
Item 08	Many worries or often seems worried	0	1	2	
Item 13	Often unhappy, depressed or tearful	0	1	2	
Item 16	Nervous or clingy in new situations	0	1	2	
Item 24	Many fears, easily scared	0	1	2	
Conduct F	Problem Scale				0-10
Item 05	Often loses temper	0	1	2	
ltem 07	Generally well behaved	2	1	0	
Item 12	Often fights with other children	0	1	2	
Item 18	Often lies or cheats	0	1	2	
Item 22	Steals from home, school	0	1	2	
Hyperactiv	vity Scale				0-10
Item 02	Restless, overactive	0	1	2	
Item 10	Constantly fidgeting	0	1	2	
Item 15	Easily distracted	0	1	2	
Item 21	Thinks things out before acting	2	1	0	
Item 25	Good attention span,	2	1	0	
Peer Prob	lem Scale				0-10
Item 06	Rather solitary, prefers to play alone	0	1	2	
Item 11	Has at least one good friend	2	1	0	
Item 14	Generally liked by other children	2	1	0	
Item 19	Picked on or bullied	0	1	2	
Item 23	Gets along better with adults	0	1	2	
Prosocial	Scale				0-10
Item 01	Considerate of other people's feelings	0	1	2	
Item 04	Shares readily with other children,	0	1	2	
Item 09	Helpful if someone is hurt	0	1	2	
Item 17	Kind to younger children	0	1	2	
Item 20	Often volunteers to help others	0	1	2	
SDQ Total Difficulties Score = Sum of Scales below 0-40					
	Emotional Symptoms Scale		0-	10	
	Conduct Problem Scale			10	
Hyperactivity Scale				10	
	Peer Problem Scale			10	

• NB. Bold items indicate reverse scoring

Calculating the Summary scores for the five Scales (Scale Scores)

Standard values must be used for coding Item responses and Summary scores. The standard values for coding individual Item responses are 0 (Not True), 1 (Somewhat True), 2 (Certainly True); and the 'missing' values 7 (Unable to rate), 8 (Protocol exclusion) and 9 (Missing data).

The Item scores used in calculation are shown in the table above. For completed items (response coded 0, 1, 2) the Item scores are usually the same as the standard values. The exceptions are items 07, 11, 14, 21 and 25, which are shown bolded in the table. These items are "reverse-scored", that is, the standard value is mapped (\rightarrow) to Item scores as follows: $0 \rightarrow 2$, $1 \rightarrow 1$, $2 \rightarrow 0$.

Summary scores are only calculated if at least three of the five items have been completed (that is, coded 0, 1 or 2). Otherwise the summary score is set to missing. For the Summary scores, the missing value used should be 99.

The Summary scores are computed using the equation shown below, with the result being rounded to the nearest whole number. In the first 25 SDQ questions, each summary scale is composed of five items.

 $Summary \, score = \left(\frac{Sum \, of \, (Item \, scores)}{N \, of \, valid \, (completed) \, Items}\right) \times Total \, Number \, of \, Items$

Calculating other diagnostic possibilities

In addition to their clinical value, the use of the perceptions of other informants can be used with an algorithm available from <u>www.youthinmind.net</u> to calculate other likely diagnostic options.

Calculating the Total Difficulties scores

The simplest way to calculate the total difficulties score is to add up the following summary scores with the result being rounded to the nearest whole number.

Total Score = *Emotional Scale* + *Conduct Scale* + *Hyperactivity Scale* + *Peer Problem Scale*.

• However, some of the summary scores may be missing. The rule is if more than one summary score is missing the Total Score is set to missing, value 99.

Calculating the Impact Score

		Item Responses				
		Not at all	A little	A medium amount	A great deal	
Standard Value for Data Entry ======→		0	1	2	3	
Data element	SDQ Item number and description		Item Score		Summary score	
Item 28	Difficulties upset or distress child	0	0	1	2	
Item 29	Interfere with HOME LIFE	0	0	1	2	
Item 30	Interfere with FRIENDSHIP	0	0	1	2	
Item 31	Interfere with CLASSROOM LEARNING	0	0	1	2	
Item 32	Interfere with LEISURE ACTIVITIES	0	0	1	2	
SDQ IMPACT SCORE						0-10

Table 2: The individual SDQ impact items and the Total score derived from them.

These questions are NOT completed if respondents have answered "No" to Item 26, which asks for an overall opinion about difficulties being present. In this case, all Item responses for Items 27 through 33 should be coded to "8" for "not applicable", and the impact score should be coded to zero. Item 27 is not included in the Impact Score, since it assesses the chronicity of the difficulties – the length of time they have been present. Item 33 is not included in the Impact Score, since it assess the burden on others rather than on the child/ youth.

The coded Item Responses for the remaining Items 28 through 32 have to be mapped to their Item Scores before adding up. This mapping is the same for all, namely: $0 \rightarrow 0$, $1 \rightarrow 0$, $2 \rightarrow 1$, $3 \rightarrow 2$ as per the table above.

Standard values must be used for coding missing item and Total scores. For individual items, the missing values are 7 unable to rate, 8 not applicable or protocol exclusion and 9 missing data. For the Total score, the missing value should be 99.

Interpreting the SDQ Symptom Scores and Defining "Caseness" from Symptom Scores

Although SDQ scores can often be used as continuous variables, it is sometimes convenient to classify scores in the bands as set out in the Table below. Using the comments, a "substantial risk of clinical significant problems" score on the Total Difficulties Score can be used to identify likely 'cases' with mental disorders. This is clearly only a rough- and ready method for detecting disorders – combining information from SDQ symptom and impact scores from multiple informants is better, but still far from perfect. Approximately 10% of a community sample scores in the 'substantial risk of clinically significant problems' band. The exact proportions vary according to country, age and gender – normative SDQ data are available from the website http://www.sdqinfo.com/b8.html. Banding and caseness criteria for these characteristics can be adjusted; setting the threshold higher when avoiding false positives is of paramount importance, and setting the threshold lower when avoiding false negatives is more important.

Table 3: Interpreting SDQ scores.

PARENT VERSIONS	'This score is close to average - clinically significant problems in this area are unlikely'	'This score is slightly raised, which may reflect clinically significant problems'	'This score is high - there is a substantial risk of clinically significant problems in this area'	
Total Difficulties Score	0-13	14-16	17-40	
Emotional Symptoms Score	0-3	4	5-10	
Conduct Problem Score	0-2	3	4-10	
Hyperactivity Score	0-5	6	7-10	
Peer Problem Score	0-2	3	4-10	
	'This score is close to average – clinically significant problems in this area are unlikely'	'This score is slightly low, which may reflect clinically significant problems'	'This score is low - there is a substantial risk of clinically significant problems in this area'	
Prosocial Behaviour Score	6-10	5	0-4	
SELF COMPLETED VERSIONS	'This score is close to average - clinically significant problems in this area are unlikely'	'This score is slightly raised, which may reflect clinically significant problems'	'This score is high - there is a substantial risk of clinically significant problems in this area'	
Total Difficulties Score	0-15	16-19	20-40	
Emotional Symptoms Score	0-5	6	7-10	
Conduct Problem Score	0-3	4	5-10	
Hyperactivity Score	0-5	6	7-10	
Peer Problem Score	0-3	4-5	6-10	
	'This score is close to average - clinically significant problems in this area are unlikely'	'This score is slightly low, which may reflect clinically significant problems'	'This score is low - there is a substantial risk of clinically significant problems in this area'	
Prosocial Behaviour Score	6-10	5	0-4	

Note: This broad classification is based on information from the <u>www.sdqinfo.com</u> web site © R Goodman and is derived from British norms. Like the Australian version, it was developed by New South Wales Health in consultation with the SDQ author. It is intended to provide a general reference range only.

See <u>www.sdqinfo.com</u> for more information.