

SCQ

The Social Communication Questionnaire

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1

Introduction

The *Social Communication Questionnaire* (SCQ) is a 40-item, parent-report screening measure that taps the symptomatology associated with autism spectrum disorder (ASD). The items are administered in a *yes/no* response format and can generally be completed by the parent (or other primary caregiver) in less than 10 minutes and scored by the administrator in under 5 minutes. There are two forms available for the SCQ. The SCQ AutoScore™ Form: Lifetime (WPS Product No. W-381B) is completed with reference to the individual's entire developmental history and produces results that are pertinent to referral for more complete diagnostic workup. The SCQ AutoScore™ Form: Current (WPS Product No. W-381A) is completed with reference to the individual's behavior during the most recent 3-month period, producing results that are pertinent to understanding everyday living experiences and evaluating treatment and educational plans.

The SCQ was originally designed as a companion screening measure for the *Autism Diagnostic Interview-Revised* (ADI-R). The final WPS Edition of the ADI-R (WPS Product No. W-382; Rutter, Le Couteur, & Lord, 2003) is a 93-item structured interview that takes 1½ to 2½ hours to complete and elicits an authoritative account of an individual's developmental history relevant to ASD. The SCQ items were deliberately chosen to match the ADI-R items that were found to have discriminative diagnostic validity. The relevant content coverage of the SCQ, while briefer, is parallel to that of the longer interview, making it suitable for use with similar populations. The principal caregiver who is most familiar with both the developmental history and the current behavior of the individual who is to be assessed should complete the SCQ. It is applicable to subjects of any chronological age above age 4.0 years provided that their mental age is at least 2.0 years. The ADI-R findings (see Rutter et al., 2003) suggest that the applicability of that instrument may extend down to a chronological age of 2.0 years as long as the mental age exceeds 2.0 years. Because this downward extension had not been tested systematically with the SCQ at the time of this manual's publication, use in ages 2 years, 0 months to 3 years, 11 months should be undertaken only with appropriate caution or as new research findings become available.

No professional help is required to complete the SCQ; a parent may be given the instrument and asked to answer the questions without direct supervision. However, overall use of the instrument and the development of interpretations based on SCQ findings should be undertaken with the supervision of an individual who has professional training in the care and treatment of individuals with ASD.

Like the other autism measures to which it is related, such as the *Autism Diagnostic Observation Schedule* (ADOS; Lord, Rutter, DiLavore, & Risi, 2001) and the ADI-R (Rutter et al., 2003), the SCQ focuses on behaviors that are rare in nonaffected individuals. For this reason, the instrument does not provide conventional scales (dimensions reflecting a continuum of some unitary underlying skill, trait, or ability), nor can there be useful norms (numerical estimates based on the performance of people in the general population). Instead, the supporting research evidence is presented in the form of validation studies with clinical populations, which use statistical analyses such as receiver operating characteristics (ROC).

General Description

The primary, validated application of the SCQ results in a single Total Score taken from the Lifetime form that is then interpreted with reference to cutoff scores drawn from the research reported on the instrument. The cutoff identifies individuals who are likely to suffer from an ASD and for whom more extended evaluations should be undertaken. In addition, subscores can be obtained that parallel the basic domains of the larger ADI-R: Qualitative Abnormalities in Reciprocal Social Interaction; Qualitative Abnormalities in Communication; and Restricted, Repetitive, and Stereotyped Patterns of Behavior. At the time of this manual's first publication, these subscores have not been extensively researched and therefore cannot be used in clinical application. However, in conjunction with the Total Score, they may prove useful in the evaluation of group differences in research usage. Administration, scoring, and basic interpretation are discussed in chapter 2 of this manual. Chapter 3 describes

the development of the instrument, and the supporting validation research is outlined in chapter 4. These more extended discussions can be summarized as follows.

Main Uses

The SCQ provides a dimensional measure of ASD symptomatology, with a cutoff score that can be used to indicate the likelihood that an individual has an ASD. The instrument has three main uses. First, in the primary clinical application as described briefly above, it can be used as a screening device with individual children in order to select (through a focus on scores above the designated cutoff) those who need a more thorough clinical assessment for a possible ASD. The ADI-R and the ADOS are appropriate tools to use for further assessment. It should be appreciated, however, that (as with any screening questionnaire) there will be some false negatives (i.e., scores below the cutoff achieved by children who will prove to have an ASD when they are assessed in detail). Depending on resources and clinical or research needs, it may be desirable to undertake a detailed clinical assessment of a child with a score just below the cutoff, if other findings suggest that the diagnosis of ASD needs serious consideration.

Second, SCQ scores can be used on a group basis to compare overall levels of ASD symptomatology across different samples. They might be used in this way to assess ASD symptomatology in children with developmental language disorders, medical conditions associated with ASD, or learning difficulties (such as the fragile X anomaly, tuberose sclerosis, or Down syndrome). Scores can also potentially be used to chart changes over time in ASD symptomatology in such groups.

Third, the scores can be used as an indication of the approximate level of severity of ASD symptomatology, either across groups or with respect to changes over time, such as may be required for assessing the possible benefits of therapeutic or educational interventions (although this use has yet to be evaluated). If the SCQ is to be used to measure change it will be necessary to use the Current form, which applies to a recent specified period of time (the previous 3 months).

Limitations

As is the case with any screening questionnaire, the SCQ is not suitable for individual diagnosis. That is because diagnosis requires information on onset, course, and context pervasiveness/specificity (as well as symptom presence). Also, caregiver reports must be checked against direct clinical observation. Finally, individual items on the SCQ necessarily rely on respondent judgments rather than investigator concepts (other than to the extent that such concepts can shape questionnaire items). The last consideration is likely to be particularly important when dealing with unusual populations. For the same reason, the SCQ is not suitable for the purpose of providing detailed descriptions of patterns of behavior in individuals.

It should be noted that the SCQ is not a suitable screening measure for use with very young children (below a mental age of 2.0 years) who are in a developmental phase during which there may be clinically significant abnormalities that do not take the full form required to meet the diagnostic criteria for ASD (see Rutter et al., 2003).