

Development of the NIMHANS Sentence Completion Test for Children and Adolescents

*Snigdhasree Bhattacharya*¹

*Uma Hirisave*²

*L.N. Suman*³

¹PhD Scholar, Department of Clinical Psychology, NIMHANS, Bangalore, India.

²Professor, Department of Clinical Psychology, NIMHANS, Bangalore, India.

³Professor, Department of Clinical Psychology, NIMHANS, Bangalore, India.

E-mail –snigdhab1@yahoo.com; drumahirisave@gmail.com

ABSTRACT

Projective techniques are used for inquiry and diagnosis, using vague or meaningless stimuli to elicit responses that are likely to reveal hidden personality strata in a subject through the projection of inner content onto the external stimulus. Sentence completion tests are a class of semi-structured projective techniques. Sentence completion tests typically provide respondents with beginnings of sentences referred to as "stems", and respondents then complete the sentence in ways that are meaningful to them. The responses are believed to provide indications of attitudes, beliefs, motivations, or other mental states. The study aimed at developing a standardized semi projective test for children and adolescents in the Indian setting. The process of developing the test involved five detailed steps. The NIMHANS Sentence Completion Test for children and adolescents has 75 items. The test has sound psychometric properties.

Key words: *test development, projective testing, tests for children and adolescents, sentence completion test.*

INTRODUCTION

Projective techniques are used for inquiry and diagnosis, using vague or meaningless stimuli to elicit responses that are likely to reveal hidden personality strata in a subject through the projection of inner content onto the external stimulus. The various stimuli used in projective techniques are intentionally vague and open to different interpretations, in the expectation that the subject will give meaning to the stimuli, meaning that emerges from internal personality processes, and thus enable observations of these processes. Various experts believe that the greater freedom subjects have to choose their responses, the more their responses will be charged with meaning for them, since they can "supplement" what the stimulus lacks and accord it meaning solely by means of their own internal content. Thus, there is no "right" or "wrong" responses to the stimuli, but whether the responses are normative or non-normative is of great importance. Projective techniques possess several clear advantages: they do not require subjects to have high reading ability or a particularly

high level of articulation (compared to other personality tests), their results are very difficult to falsify, and they enable a wide variety of assumptions and a broad and comprehensive view of the subject's personality [1]. Projective techniques have been developed specifically for use with adults as well as children.

Sentence completion tests are a class of semi-structured projective techniques. Sentence completion tests typically provide respondents with beginnings of sentences referred to as "stems", and respondents then complete the sentence in ways that are meaningful to them. The responses are believed to provide indications of attitudes, beliefs, motivations, or other mental states. A sentence completion test form may be relatively short, such as those used to assess responses to advertisements, or much longer, such as those used to assess personality. The tests are usually administered in booklet form where respondents complete the stems by writing words on paper. The structures of sentence completion tests vary according to the length and relative generality and wording of the sentence stems. Structured tests have longer stems that lead respondents to more specific types of responses; less structured tests provide shorter stems, which produce a wider variety of responses. The uses of sentence completion tests include personality analysis, clinical applications, attitude assessment, achievement motivation, and measurement of their constructs. The data collected from sentence completion tests can usually be analyzed either quantitatively or qualitatively.

In a review of literature on the Sentence Completion Test (SCT), it was found that they were among the most commonly used personality assessment instruments. They were ranked second by Japanese clinicians, third by clinical psychologists, fifth by clinicians working with adolescents, fourth by school psychologists, fifth by representatives of mental health service providers, and third by members of the Society for Personality Assessment in response to the question: "With what 5 projective tests should the professional practitioner be competent?" [2]. The Sentence Completion Test developed by Sacks and Levy (1950) is used with adult patients in NIMHANS. It was developed to explore specific clusters of attitudes or significant areas of an individual's life [3].

Based on a survey [2] carried out to examine which Sentence Completion Test (SCT) was most used, why it was preferred and the scoring method adopted. The sample consisted of 60 members of the Society for Personality Assessment, U.S.A. They found that out of 15 Sentence Completion Tests available to the clinicians, Rotter's (1951) Incomplete Sentences Blank [4] was the most popular with 58% of the sample reporting its use. 11% used it with children, 19% with adolescents and 28% with adults. 8 of the tests were not used at all and the rest were used by 4% or less. 80% of the respondents who used SCT with children preferred to read stems aloud and record the answers for their clients. The responses were not scored quantitatively but were interpreted by examiners based on their own clinical skills. The authors also note that although Rotter's SCT is very popular, it does not have specific items that might be relevant for younger children or children with diverse culture backgrounds [4].

A recent research [5] used a Sentence Completion Test, Three Wishes Task and the Child Behavior Checklist to assess self-perceptions, thoughts, hopes and inner lives of 128 persons with intellectual disabilities (ID), including children. They found that the semi-projective test provides persons with ID with just enough structure or cues to convey their self-perceptions in a spontaneous and unbiased manner. Results

indicated frequent themes of activities, positive effect, desired objects and relationships with family and pets. The responses were significantly related to either syndrome status or CDCL maladaptive behavior. The study thus indicates the usefulness of SCT in the clinical setting with children.

According to studies [2], SCTs will remain popular with practitioners because the tests provide significant information that is valuable for diagnoses and treatment planning. They suggest that practitioners may be better served by writing some of their own stems, reading them aloud to their clients, and recording the responses themselves. They also recommend that SCTs should (a) be tailored to provide appropriate and accurate information about clients personalities, (b) be based on the theoretical orientations of the examiner, (c) reflect the needs and expectations of clients cultural and religious backgrounds, and (d) be appropriate for client academic and mental developmental levels. However, there are no well established Sentence Completion Tests developed specifically for children in the Indian setting. In order to overcome this lacuna, the authors developed a SCT for use with children and adolescents [6].

DEVELOPMENT OF THE SCT IN CHILDREN AND ADOLESCENTS

Step 1

The aim of developing the test was to assess adjustment of children in different domains. The objective was to assess the child's perceptions, attitudes and interactions to arrive at a comprehensive understanding of the child's adjustment, conflicts, relationship problems and self-concept. Items for the test were generated by examining literature on psychological needs, relationships and aspirations of children. Clinical experience with children attending the Child and Adolescent Mental Health (CAMH) Unit at NIMHANS was also used to generate some of the items. Two psychologists with extensive experience in working with children and their families generated sentence stems. Care was taken to keep the stems brief and the language of the items simple. The total number of items generated was 125. Socio-cultural factors were kept in mind while generating the items. For example, since Indian families are fairly large and since Indian culture is inter-dependent, items related to siblings and grand-parents were included. Similarly, parental attitude towards the child was considered important in view of neglect of the girl child in the Indian setting.

Step 2

The 125 items, written in English, were categorized into five broad areas: Home; Friends; School; Self-Concept; Neutral items. The home area has six sub areas which are: Relationship with Father; Relationship with Mother; Relationship with Siblings; Father-Mother Relationship; Parental attitude towards Child; Family Unit. The area of friends refers to peers at school as well as friends outside school. The School area has two sub-areas which are: Adjustment to School; Attitude to Teachers. The area of Self-concept has five sub-areas which are: Attitude towards Own Abilities; Emotional Functioning; Coping with Emotions; Guilt Feelings; Goals for the Future. The Neutral items included like and dislikes as well as relationship with grandparents. Thus there are a total of 15 sub-areas under the five broad categories of adjustment. Items were written to include both positively worded stems and negatively

worded stems. The sentence stems representing different sub-areas were ordered in such a way that items in any specific area were not clustered together. The scoring system suggested by Sacks and Levy (1950) [3] was adopted for the test. Each area is rated on a three point scale, i.e., 0, 1 and 2. 0 indicates good adjustment; 1 indicates mild problems in adjustment; 2 indicate significant problems in adjustment.

Step 3

The 125 item test was give to a clinical psychologist with more than 10 years experience in working with children and adolescents for final selection of the items. Items were examined for face validity, repetition, language, usefulness and appropriateness. Inter-rater agreement was also carried out to arrive at a consensus for including or excluding items in specific areas. The inter-rater agreement was found to be good. That is, the inter-rater agreement was at the 0.001 level. Following these procedures, 35 items were rejected, leading to a final item pool of 90 items. These 90 items are spread over the 15 sub-areas in such a way that each sub-area has 6 items. The instructions, for administration of the test by the examiner, are as follows: "This is a test to find out how you generally relate to people, your feelings, thoughts, likes, dislikes and hopes. I will be reading out sentences which are incomplete. Your task is to complete the sentence as quickly as possible with the first thought that comes to your mind. Do not spend too much time thinking about your answer. There is no right or wrong answers. You have to complete all the items in the test. Since you are familiar with school tasks such as "Fill in the Blanks, this tasks will not be difficult for you to carry out. If you have any doubts about any of the sentence stems, feel free to clarify your doubts before responding. For example, complete the following sentence: 'The color of a crow is'. Now, I will be reading the other items. Are you ready?" For the Self-report method, the sentence "I will be reading out sentences which are incomplete", was replaced by the sentence "Read carefully the incomplete sentence give below".

Step 4

A Pilot Study was carried out to examine the ease with which the test could be administered and to check the ease with which children could comprehend the sentence stems. The sample consisted of 40 children in the age range of 8 to 12 years who are comfortable with the English Language. 20 children were clients attending the CAMH Unit at NIMHANS and 20 were normal children selected from a school. Oral informed consent was taken from all the children. It was found that the children could easily understand the sentence stems and respond appropriately. The time taken to administer the test ranged from one hour to one and a half hour. None of the children found the test too long and they showed keen interest in the task. Some of the children attending the CAMH clinic cried when they came across items that had a direct bearing on their problem. Both quantitative and qualitative analyses of the responses were carried out. Findings revealed that the test was useful in getting a profile of adjustment in children, indicating good clinical utility. Based on the Pilot Study, it was decided that oral administration was a better approach as it was appropriate for children with reading/writing/spelling difficulties. In the self-report format, some items were left out by the children. They were gently coaxed to complete items that they had left out.

Step 5

This step aimed at obtaining information about adjustment of normal children. The management of various English medium schools were contacted to obtain permission to administer the test on normal school going children. The aim of the study was explained to them along with ethical principles to which the investigators would adhere. After obtaining the required permission, oral informed consent was sought from the children. None of the children refused consent and the test was administered to children studying in four English medium schools. The total sample size was 162 and the age range was 8 to 14 years. The sample consisted of 93 boys and 69 girls and they showed tremendous interest in the test. Responses indicated that the test was able to correctly identify children with adjustment difficulties, relationship conflicts and emotional problems. Typical responses of well adjusted children were also noted for purposes of comparison. Based on the experience of using SCT with young children, the authors decided to reduce the number of items from 90 to 75. Two items were replaced and 5 items were slightly modified. The instructions also were modified.

DISCUSSION

The study aimed at the development of a semi projective test for children and adolescents and was successful in doing so. The steps that were followed in the construction of the test have been explained as transparently as possible. One of the main strengths of the test is the cultural relevance. The authors have carefully tried to incorporate items in the test that are culturally appropriate. An example would be the involvement of grandparents as an essential family member is seen a lot in the Indian context. The test successfully captures these life experiences that children and adolescents in India go through. Another strength would be the sound psychometric properties of the test, the test has been administered on larger samples, undergone inter rater reliability and all the steps involved in development of a psychological test.

Another strength would be the simplified instructions and sentence stems. The instructions of the test, is well suited for children and adolescents especially drawing comparison with fill in the blanks makes the instructions clear and simple for children. Drawing this comparison also makes the process of testing less intimidating for children. The items or sentence stems are very simple and easy to follow, making it extremely child friendly. It would be important to highlight that the test is very comprehensive as it covers five broad areas and fifteen sub categories. The wide spread coverage of items ensure a detailed understanding of the child's world, who undergoes the testing. One of the limitations is that the test currently has 75 items, which is rather long. It may be useful if an alternative shorter version is also developed. Another limitation of the test is that, the test is used for adolescents also; however there is a need to incorporate items related to puberty and heterosexual relationships. This lends itself to development of an additional version for adolescents.

CONCLUSIONS

The aim of the study was to develop a standardized semi projective test for children and adolescents in the Indian setting. The test has 75 items, which are easy to follow and culturally relevant. The test has been developed following the steps prescribed for construction of a psychological test. The test has sound

psychometric properties. It would be interesting to find out about the applicability of the test in clinical setting.

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