Review of the State-Trait Anxiety Inventory (STAI)
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General Information

Title: State – Trait Anxiety Inventory

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Publisher: Mind Garden Inc. 855 Oak Grove Ave., Suite 215, Menlo Park, CA 94025

Forms, groups to which applicable: There are three forms of the STAI. The current variation is
the STAI Form Y, which differentiates between temporary or emotional state anxiety versus long
standing personality trait anxiety in adults. The STAI Form X is the first version of the STAI,
which is still available to purchase. The third form is the STAI for children.

Practical Features: The STAI, which is appropriate for those who have at least a sixth grade
reading level, contains four-point Likert items. The instrument is divided into two sections, each
having twenty questions. The number on the scale is positively correlated to the anxiety related
to in the question.

General Type: The STAI Form Y serves as an indicator of two types of anxiety, the state and
trait anxiety, and measure the severity of the overall anxiety level.

Date of Publication: 1970

Cost: STAI Manual and Sample Set: $30.00. For bulk purchases, they come in bundles of 150
for $120.00, 200 for 150.00, 300 for $210.00, 400 for $260.00, and 500 for $300.00. The
scoring key is sold separately at $10.00. Translations are available, and larger bulk orders are
possible. (Mindgarden, 2008)

Scoring services available and cost: Available for $10.00, includes procedures for administering
and scoring the scales. Included in the manual are instructions for properly evaluating the scores
and potential diagnosis.

Time required: Approximately 10 minutes are required for adults to complete the STAI.

Purpose and Nature of the Instrument

Purpose for which evaluated: Used to measure anxiety in adults. A version is available for
children. Helps distinguish feelings of anxiety from depression.

Description of test, items and scoring: the STAI Form Y is an administered analysis of reported
anxiety symptoms. The first subscale measures state anxiety, the second measures trait anxiety.
The range of scores is 20-80, the higher the score indicating greater anxiety (Spielberger et al.,

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Some of the questions relate to the absence of anxiety, and are reverse-scored. Results of the STAI can be used in the formulation of a clinical diagnosis; to help differentiate anxiety from depression; for psychological and health research; and for the assessment of clinical anxiety in clients in medical, surgical, and psychiatric settings (Mindgarden, 2008). Another feature of the scoring key addresses if three or fewer questions were skipped, providing an alternative scoring procedure.

Technical Considerations

Validity: In an example of its construct validity, the STAI was used in a study with multiple other assessments to study the correlation between Panic Disorder and right-hemisphere brain over activation (Smeets et al., 1996). The study was conducted with twenty-two patients who met the Panic Disorder criteria. The STAI-state and STAI-trait were found to be positively correlated with the Anxiety Sensitivity Index (Peterson & Reiss, 1987), and positively correlated with the Conjugate Lateral Eye Movements test (De Jong, Merckelbach & Muris, 1990) results. These results reinforced the convergent validity of the STAI for the purpose of this research study.

Concurrent validity between the STAI-T Anxiety Scale and to other scales that measure anxiety. The Anxiety Scale Questionnaire (ASQ) and Manifest Anxiety Scales (MAS) have positive correlation of scores (.73 and .85) with the STAI –T, which is close enough to show reliability but different enough to be useful in its anxiety determination (Spielberger, et al, 1995).

Reliability: Test-retest reliability of the STAI was evaluated using 29 male undergraduate students before and after a stressful social analogue situation (Rule & Traver, 1983). The first test administration occurred approximately two weeks before the stressful event, and the retest was administered after the analogue social situation. The study results supported previous studies using the STAI, in which state anxiety increased from the test to the retest while the trait anxiety remained at similar levels before and after (Rule & Traver, 1983). According to the test-retest correlations provided by Spielberger et al. (1970,) the state anxiety should have a .54 (state) and the .86 (trait) correlation. Rule’s and Tarver’s findings of .40 (state) and .86 (trait) were similar to the reliability coefficients reported by the test author. The similarities of the study and the author’s correlations emphasize the STAI’s reliability.

Practicality: Per assessment, it is fairly cost effective as each single assessment costs less that a dollar, though a large number would have to be ordered. The STAI is appropriate to use for those attempting to gain employment in high stress or anxiety-prone activities, such as military service, changing career fields or higher education application. The STAI form Y is not meant for anyone under high school level or above age 70. Because the time it takes to complete and the affordability of the instrument, the STAI is practical for mass distribution and completion. For accurate completion, an approximate six grade reading level is required. Another measure of its practicality is based on it’s correlation to the aforementioned ASQ and MAS scales. The STAI-Trait measurement not only is a comparable equivalent, it also has only twenty questions compared to the ASQ’s forty-three questions and the MAS’s fifty items (Spielberger et al, 1995).
Evaluation

Cross-cultural Fairness: The STAI is written on a sixth-grade reading level, which allows for assessment of a larger client pool. For those adults who are still unable to complete the STAI without assistance, the STAI can be administered to both the group and individual depending on needs of those being evaluated (Mindgarden, 2008). The STAI is adapted into 48 languages. As shown in the discussed studies, the STAI can be effectively used to measure a particular population in study regardless of their racial, spiritual or gender background.

References


