TEST ANXIETY AND PERFORMANCE ON THE WECHSLER INTELLIGENCE SCALE FOR CHILDREN

THESIS

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By

Mary Lois Leonard, B. S.
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TABLE OF CONTENTS

LIST OF TABLES ........................................ iv

Chapter

I. INTRODUCTION ..................................... 1
   Statement of the Problem and Hypotheses
   Significance of the Study
   Basic Assumptions
   Related Research

II. METHOD ........................................ 14
   Population for the Study
   Procedures for Treating Data
   Description of Instruments

III. RESULTS ....................................... 18
    Presentation of Data

IV. DISCUSSION AND SUMMARY .................... 24

BIBLIOGRAPHY ........................................ 32
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>Mean Scores and Standard Deviations of WISC IQ Scores</td>
<td>19</td>
</tr>
<tr>
<td>II.</td>
<td>Correlation Coefficients between TASC Scores and Verbal Scale, Performance Scale, and Full Scale WISC IQ's</td>
<td>20</td>
</tr>
<tr>
<td>III.</td>
<td>Mean Scores and Standard Deviations of WISC Subtest Scores and TASC Scores</td>
<td>21</td>
</tr>
<tr>
<td>IV.</td>
<td>Correlations between TASC Scores and WISC Subtest Scores</td>
<td>22</td>
</tr>
</tbody>
</table>
Although the significance of anxiety has long been recognized and explored within the framework of psychoanalysis, it was not until after World War II that it began to influence research in psychology. The manipulation of anxiety as a research variable has taken place both within and without the framework of psychoanalytic theory.

Along with the manipulation of anxiety as a research variable, various scales have been developed to measure anxiety in individuals. For the most part, the measure of anxiety is derived from the number of times an individual admits to feelings of anxiety. These scales, however, measure anxiety in many different types of situations and are not restricted to anxiety in one particular type of situation. Thus, a group of individuals may be labeled as "anxious," but may differ widely in what they are anxious about and even in the number of situations in which they are anxious. Although two individuals might have the same anxiety score on a particular anxiety scale, their pattern of anxieties might be entirely different.

 Included in the scales developed to measure anxiety is the Test Anxiety Scale for Children (TASC). The TASC,
developed by Sarason et al. (7), differs from the general anxiety scales in that it is a measure of a relatively specific anxiety—anxiety in school and test taking situations in school. A relatively specific anxiety was focused upon by Sarason et al. in the hope that the study of anxiety in a particular situation would shed some light on the origin and effects of anxiety in other situations, as well as the common anxiety-arousing aspects of these situations (7). Test anxiety in children was chosen as an area of study for several reasons. The first consideration was that the test situation is experienced by almost all members of our society. A second consideration was that both the tester and testee frequently perceive the testing situation to have an evaluative or assessment purpose, and that it is important to do well, however differently "well" might be defined by tester and testee. A major consideration in choosing test anxiety as an area of focus, and one with which the present study was most concerned, was that if test anxiety is an important and frequent response to the test situation, then the ability to assess such anxiety objectively would have relevance for the general problem of the nature and effects of test-taking attitudes and reactions.

Of particular relevance to the present study is the relationship between anxiety and test performance. In this regard, Sarason (7, p. 20) hypothesizes that test anxiety essentially interferes with problem-solving in the test
situation. He states, "the test anxious response, like all other anxious responses, has two major (and cumulative) effects: it narrows considerably the perception of the external field and prevents a dispassionate assessment of the nature of the problem-solving task." Initially, the test anxious response develops when the child is aware that he is or will be in a situation in which an authority figure will in some way pass judgment on his adequacy. Other situational factors hypothesized as affecting the performance of the test anxious child include the personality and behavior of the examiner and the nature of the problem-solving tasks. Performance of the test anxious child is likely to be impaired in situations in which structure is loose, in which little direction is given, and in which few clues or little support can be offered to the child by the examiner. The basis for this hypothesis is the strong dependency needs of the test anxious child (7).

Initial validation studies on the Test Anxiety Scale for Children included correlating TASC scores with teacher ratings, group intelligence and achievement tests, and scores on the General Anxiety Scale for Children, a test which measures anxiety in situations other than test-like situations. Significant positive relationships were found between TASC scores and scores on the General Anxiety Scale for Children. As was expected, significant negative correlations were
obtained between TASC scores and group administered intelligence and achievement test scores (7).

The unidimensionality of the TASC was evaluated by Dunn (2) in a study using a slightly modified version of the TASC. The TASC was administered to 633 pupils from the fourth, fifth, and sixth grades. Four factors were obtained: (a) text anxiety, (b) generalized school anxiety, (c) recitation anxiety, and (d) physiological arousal in anticipated recitation situations. It was thought that as far as elementary school children were concerned, there appeared to be a distinct difference between their TASC responses regarding concern associated with being tested and their TASC responses regarding a broader and more pervasive concern about school in general. In conclusion, Dunn states that as far as elementary school children are concerned, the TASC is not a unidimensional assessment of anxiety and that a TASC score derived from all items could more appropriately be considered a measure of school anxiety rather than test anxiety. Another study in this area by Silverstein and Mohan (9) concludes the TASC is not a unidimensional measure of anxiety in retardates and is possibly more a measure of school anxiety. For the purposes of the present study, the TASC was considered not only a measure of test anxiety, but a measure of school anxiety, also.

Numerous studies have been carried out dealing with the effects of anxiety in various problem situations, and such
studies have shown that anxiety affects various problem-solving situations differentially; however, these studies have primarily involved adult subjects and a survey of the literature reveals relatively few studies in which children were used as subjects. The present study was an attempt to clarify the effects of anxiety in children upon performance in problem-solving situations, such as can be assessed through an individually administered intelligence test.

The intelligence test chosen for the present study was the Wechsler Intelligence Scale for Children (WISC) as it permits a detailed evaluation of the effects of test anxiety upon various kinds of intellectual functioning. In addition, it is an instrument widely used in clinical practice and is generally accepted as a criterion measure of intellectual functioning.

Statement of the Problem and Hypotheses

The primary purpose of the present study was to determine the relationship between test anxiety, as determined by scores on the TASC, and performance on the Wechsler Intelligence Scale for Children. TASC scores were compared to Verbal Scale, Performance Scale, Full Scale, and individual subtest scores on the WISC. The hypotheses tested in this study were:

I. The Verbal Scale, Performance Scale, and Full Scale WISC IQ's would have significant negative correlations with TASC scores.
II. The Arithmetic, Digit Span, and Object Assembly subtests of the WISC would have significant negative correlations with TASC scores.

In addition, the degree of relationship found to exist between TASC scores and WISC scores was investigated.

Significance of the Study

Through a comparison of scores on the TASC and intellectual test performance, such as is obtained on the WISC, the relationship between test anxiety and various kinds of intellectual tasks can be evaluated. If performance of certain kinds of tasks can be shown to be either impaired or facilitated by the test anxiety level of the individual, the clinician would then be better able to evaluate the performance of the individual in the test taking situation itself, as well as to predict more accurately the performance of the individual in other test taking situations, such as those encountered in the regular classroom setting in school.

Since the WISC is used by clinicians not only as an indicator of intellectual ability, but also as an instrument useful in assessing emotional factors, the present study should be helpful in assessing these factors. Through an analysis of WISC performance, the clinician would be able to determine test anxiety level and this would have important implications for personality assessment.
Frequently, the clinician attempts to explain lowered functioning on certain subtests of the WISC on the basis of the high anxiety level of the individual; however, since a survey of the literature reveals a dearth of studies dealing with the effects of anxiety upon WISC subtest scores, one suspects that explanations of the sort have been based upon "clinical judgment" and/or results of studies utilizing the Wechsler Adult Intelligence Scale (WAIS) rather than the WISC. It cannot, of course, be assumed that subtest scores or patterns on the WISC would carry the same implications as subtest scores on the WAIS; therefore, a study employing the WISC and an appropriate measure of anxiety would seem to allow the clinician to make a more valid interpretation of WISC subtest scores.

Basic Assumptions

In order to formalize the structure of the study, the following basic assumptions are necessary:

1. Similar procedures of test administration were used by the various clinicians involved.

2. In each case rapport was adequate for testing.

3. Although sex differences in TASC scores have been reported, the magnitude of the difference is not considered great enough to warrant a separate analysis of male and female performance.
Related Research

A survey of the literature reveals numerous studies concerned with the relationship between anxiety and intelligence. As previously stated, however, for the most part these studies have used adults as subjects and there are relatively few studies reported in which children have been used as subjects. Although the present study involves using children as subjects, a review of several studies concerned with the relationship between anxiety and intelligence test performance in adults might be of interest.

Since the sample for the present study was drawn from a clinic population with referral having been based upon problems in learning, reading, emotional adjustment and/or behavior, one suspects that this population would possess different characteristics than a normal population. That this might be the case seems indicated in a study reported by Calvin, Koons, Bingham, and Fink (1), in which two groups of college students were given the Wechsler-Bellevue Scale and the Taylor Anxiety Scale. The first group was composed of students in an undergraduate psychology class and the second group was made up of students with lower IQ scores who were having academic difficulty. Whereas only the Digit Span and Block Design subtests showed significant negative correlations with Taylor scores in the first group of students, in the second group of students significant negative correlations were found between Taylor scores and Full Scale
IQ, Verbal Scale IQ, and six of the subtests (Information, Arithmetic, Vocabulary, Digit Span, Block Design, and Object Assembly).

Another study involving the Taylor Anxiety Scale and the Wechsler Adult Intelligence Scale, which was done by Siegman (8), indicated that subjects with high anxiety scores on the Taylor made systematically lower scores on the Arithmetic, Digit Span, and Digit Symbol subtests than on the other subtests of the Wechsler. Wechsler (10) reports this is a finding which is in line with clinical experience and further notes other subtests which occasionally reflect anxiety are Object Assembly and Picture Arrangement. He reports the low scores on these subtests seem to be due to temporary loss of goal, occasional awkwardness, or unnecessary persistence. It will be interesting to compare the effects of anxiety upon WISC subtest scores with those found using the adult intelligence scales.

The Children's Manifest Anxiety Scale (CMAS) has been employed as a measure of anxiety in assessing the effects of anxiety upon intelligence test performance in children. Two studies (4, 6) reported significant negative correlations between the CMAS and intellectual functioning as measured by the Otis, a group intelligence test.

Hafner, Pollie, and Wapner (5) studied the relationship between WISC scores and scores on the Children's Manifest Anxiety Scale. Using a sample of forty-two children, only
the correlations for the Block Design and Coding subtests were found to be significant at the 5 per cent level of confidence. Except for the Picture Completion subtest, the consistent negative correlations between WISC items and the CMAS scores suggested a general negative relationship between manifest anxiety and WISC functioning. While the negative correlation between CMAS and WISC Full Scale IQ did not reach significance at the 5 per cent level, it was thought that the use of a larger population would yield significant results.

Feldhusen and Klausmeir (3) found that children in the low IQ group (IQ 56-81) had significantly higher anxiety scores (CMAS) than children in the average (IQ 90-110) or superior (IQ 120-146) groups. The average and superior groups did not differ significantly from one another in anxiety scores.

The relationship between the TASC and scores on group tests of mental ability which differed in content, format, and method of administration was explored by Zweibelson (11). The Otis-Alpha, the Davis-Eells, and the Otis-Beta were administered to twelve fifth grade classes. The correlation between the TASC and the Davis-Eells Games was significantly lower than the correlation between the TASC and Otis tests. These results were interpreted as suggesting that text anxiety is not as potent an interfering factor in tests which
are not presented as tests, which have no time limits, and in which reading is not required.

In order to determine the relationship between anxiety and differences in test content, Sarason et al. (7) studied performance on Thurstone's battery of Primary Mental Abilities Tests and the TASC. A significant overall relationship was found to exist between the Primary Mental Abilities Tests and the TASC. The Primary Mental Abilities Tests were found to differ significantly among themselves in the degree to which they were related to the TASC.
CHAPTER BIBLIOGRAPHY


CHAPTER II

METHOD

Subjects

The population for this study consisted of children who were referred to the educational clinic of a large Southwestern school system. These children were referred to the clinic for individual study for problems in learning, reading, emotional adjustment, and/or behavior. The sample consisted of elementary school children who had been seen in the clinic for individual study and who met the following requirements:

1. The chronological age must be between six years, no months, and twelve years, no months.

2. The child must have taken all of the subtests of the WISC (with the exception of Mazes), and obtained Full Scale, Verbal Scale, and Performance Scale IQ's of 80 or above.

3. The child must have taken the Test Anxiety Scale for Children.

4. The clinician who administered the tests must have reported that rapport was adequate for testing.

The first fifty cases which met the above requirements composed the sample. Using these criteria, the sample was
composed of males and females with Full Scale WISC IQ's ranging from 83 to 133.

**Procedures for Treating Data**

The Pearson product moment correlation coefficient was one technique employed to treat the data statistically. Correlation coefficients were obtained to determine the degree of relationship between TASC scores and the various WISC subtests, Full Scale IQ's, Verbal Scale IQ's, and Performance Scale IQ's. Significance of correlation coefficients was determined by using a t-test. The 5 per cent level of significance was chosen as the lower limit for determining significance of the correlation coefficients. A multiple correlation was also obtained between the WISC subtests and the TASC.

**Description of Instruments**

**TASC.**—This term refers to the Test Anxiety Scale for Children, which is composed of thirty items to which the subject gives either a "yes" or "no" answer. The questions, related to feelings of anxiety in school and test taking situations, are read to the subject and he responds by circling "yes" or "no" on a printed answer sheet.

**WISC.**—This term refers to the Wechsler Intelligence Scale for Children, a test of intelligence devised by Wechsler, which is appropriate for children ages five through fifteen (Wechsler, 1949). Results are obtained in terms of
a Verbal IQ, Performance IQ, and Full Scale IQ with scale scores for each of twelve possible subtests. Descriptions of the eleven subtests used in this study follow:

1. Information--This subtest, a measure of general knowledge, information, and long term retention of knowledge, requires a short, uninvolved verbal response.

2. Comprehension--This subtest, a measure of verbal social intelligence, requires verbal knowledge of appropriate responses in social situations and ability to formulate acceptable responses to practical situations and problems.

3. Arithmetic--This subtest is a measure of oral arithmetic skills.

4. Similarities--This subtest is a measure of verbal concept formation, involving the ability to generalize between similar verbal concepts.

5. Vocabulary--This is a test of ability to define words, which provides an assessment of ability to express ideas and thoughts and indicates ability to deal with abstract verbal concepts.

6. Digit Span--This subtest involves immediate recall of orally presented digits and is assumed to measure immediate auditory memory and attention span.

7. Picture Completion--This subtest involves the identification of missing parts in visual stimuli and is assumed to be a measure of visual concentration.
8. Picture Arrangement--This subtest involves arranging cartoon-like pictures to produce a sensible story. The test is assumed to be a measure of nonverbal social intelligence.

9. Block Design--This subtest involves reproducing visual designs with blocks and allows for assessment of perceptual-motor skills.

10. Object Assembly--This subtest involves forming unknown parts into whole configurations and is considered to be a measure of motor coordination and visual-motor integration.

11. Coding--This subtest is a routinized perceptual-motor task assessing psychomotor speed and accuracy.
CHAPTER III

RESULTS

Presentation of Data

The analysis includes the mean scores and standard deviations of all sets of scores used and the correlation coefficients obtained between TASC scores and the fourteen scores on the WISC. The results of this study are presented according to the hypotheses presented in Chapter I.

The first hypothesis was that Verbal Scale, Performance Scale, and Full Scale WISC IQ's would have significant negative correlations with TASC scores. Presented in Table I are the mean scores and standard deviations for the Verbal Scale, Performance Scale, and Full Scale IQ's of the WISC. In a normal sample one would expect little difference between Verbal, Performance, and Full Scale IQ's. From the data in Table I, one may draw inferences about the intellectual functioning of the study sample and the similarity between the various WISC Scale IQ's. The sample used in the present study was composed only of children having Verbal, Performance, and Full Scale IQ's of 80 or above and, therefore, results do not include those youngsters at the lower IQ levels. For this reason one might expect the mean IQ scores of this sample to be somewhat higher than those obtained
when the population includes those individuals whose functioning is below 80 in either Verbal, Performance, or Full Scale IQ's; however, offsetting the effects of this higher cutoff level would be the characteristics of this particular sample, including referrals based upon problems in intellectual and emotional areas.

TABLE I

MEAN SCORES AND STANDARD DEVIATIONS OF WISC IQ SCORES

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Scale</td>
<td>99.10</td>
<td>13.22</td>
</tr>
<tr>
<td>Performance Scale</td>
<td>101.62</td>
<td>11.92</td>
</tr>
<tr>
<td>Full Scale</td>
<td>100.34</td>
<td>11.97</td>
</tr>
</tbody>
</table>

The data in Table I indicate the sample had a mean Full Scale IQ comparable to that of the general population, with a standard deviation somewhat smaller than would be expected with a normal sample. The high degree of similarity existing between Verbal Scale, Performance Scale, and Full Scale IQ's is to be expected if the WISC administration is valid. Very likely the smaller standard deviations are a function of the homogeneity of the study sample in that all children in the sample must have obtained Verbal Scale, Performance Scale, and Full Scale IQ's of 80 or above.
Table II is a presentation of the correlation coefficients between scores on the TASC and Verbal Scale, Performance Scale, and Full Scale WISC IQ's.

**TABLE II**

**CORRELATION COEFFICIENTS BETWEEN TASC SCORES AND VERBAL SCALE, PERFORMANCE SCALE, AND FULL SCALE WISC IQ'S**

<table>
<thead>
<tr>
<th>Scale</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Scale</td>
<td>-.32</td>
<td>.05</td>
</tr>
<tr>
<td>Performance Scale</td>
<td>-.36</td>
<td>.05</td>
</tr>
<tr>
<td>Full Scale</td>
<td>-.38</td>
<td>.05</td>
</tr>
</tbody>
</table>

The data in Table II indicate that TASC scores are negatively correlated with WISC Verbal, Performance, and Full Scale IQ scores at the 5 per cent level of confidence. The first hypothesis concerning the relationship between WISC IQ scores and TASC scores is supported by this data. These results suggest there is a negative relationship between test anxiety level and intellectual functioning as measured by an individually administered intelligence test.

Table III is a presentation of data concerning the relationship between TASC scores and functioning on the various subtests of the WISC. Table III includes the mean scores and standard deviations of the WISC scores and TASC scores.
TABLE III

MEAN SCORES AND STANDARD DEVIATIONS OF WISC
SUBTEST SCORES AND TASC SCORES

<table>
<thead>
<tr>
<th>Subtest</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>10.18</td>
<td>2.80</td>
</tr>
<tr>
<td>Comprehension</td>
<td>9.26</td>
<td>2.88</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>9.96</td>
<td>2.47</td>
</tr>
<tr>
<td>Similarities</td>
<td>10.28</td>
<td>3.18</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>9.62</td>
<td>2.59</td>
</tr>
<tr>
<td>Digit Span</td>
<td>9.76</td>
<td>2.09</td>
</tr>
<tr>
<td>Picture Completion</td>
<td>10.26</td>
<td>2.97</td>
</tr>
<tr>
<td>Picture Arrangement</td>
<td>10.78</td>
<td>2.16</td>
</tr>
<tr>
<td>Block Design</td>
<td>10.42</td>
<td>2.76</td>
</tr>
<tr>
<td>Object Assembly</td>
<td>9.90</td>
<td>2.68</td>
</tr>
<tr>
<td>Coding</td>
<td>9.98</td>
<td>2.37</td>
</tr>
<tr>
<td>TASC Score</td>
<td>14.20</td>
<td>7.15</td>
</tr>
</tbody>
</table>

The data in Table III indicate that the scores on the various subtests of the WISC have similar means and standard deviations. This similarity in means and standard deviations would be expected on the basis of the design of the WISC. Since Sarason does not report mean TASC scores for his studies utilizing the TASC and performance on group intelligence tests with school children, one cannot evaluate the mean TASC score which is presently obtained in relation to other groups.
Table IV is a presentation of the correlation coefficients between scores on the TASC and WISC subtest scores, as well as the level of significance for the correlations.

<table>
<thead>
<tr>
<th>Subtest</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>-.36</td>
<td>.05</td>
</tr>
<tr>
<td>Comprehension</td>
<td>-.15</td>
<td></td>
</tr>
<tr>
<td>Arithmetic</td>
<td>-.30</td>
<td>.05</td>
</tr>
<tr>
<td>Similarities</td>
<td>-.31</td>
<td>.05</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>-.42</td>
<td>.05</td>
</tr>
<tr>
<td>Digit Span</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Picture Completion</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Picture Arrangement</td>
<td>-.35</td>
<td>.05</td>
</tr>
<tr>
<td>Block Design</td>
<td>-.27</td>
<td></td>
</tr>
<tr>
<td>Object Assembly</td>
<td>-.29</td>
<td>.05</td>
</tr>
<tr>
<td>Coding</td>
<td>-.16</td>
<td></td>
</tr>
</tbody>
</table>

The data in Table IV indicate that six of the eleven subtests are significantly correlated in a negative direction with TASC scores. Of the eleven subtests only two, Digit Span and Picture Completion, are positively correlated with TASC scores, and these correlations are not significant. Two of the subtests (Arithmetic and Object Assembly), which
it was hypothesized would correlate negatively at a significant level with TASC scores, were found to have significant negative correlations, but the third subtest, Digit Span, which it was hypothesized would correlate significantly in a negative direction, was found to correlate positively, although not significantly, with TASC scores. Failure to achieve a significant negative correlation on the Digit Span subtest was somewhat unexpected in that a negative correlation between anxiety level and scores on the Digit Span subtest had been reported in two previous studies. These studies, however, involved the use of adults as subjects rather than children.

A multiple correlation of .65, significant at the 5 percent level of confidence, was found between WISC subtest scores and TASC scores. The only subtests found to be significant predictors of TASC scores were the Vocabulary subtest and the Picture Arrangement subtest. Although other subtests may have increased the multiple correlation they did not increase it significantly.
CHAPTER IV

DISCUSSION AND SUMMARY

Discussion

The results of the present study indicate there is a negative relationship between TASC scores and performance on an individually administered intelligence test, the WISC. The negative relationship found to exist between test anxiety and general intellectual functioning was not unexpected since numerous studies involving anxiety and intellectual functioning have pointed toward a generally negative relation between the two. The significant negative correlations obtained between TASC scores and Verbal Scale, Performance Scale, and Full Scale WISC IQ's are suggestive that test anxiety has an interfering effect upon general intellectual functioning. Arguments relating to test anxiety as the etiologically significant factor in producing the negative relation between the TASC and measures of intelligence are presented by Sarason (4) as follows:

1. If test anxiety is not nearly as important as level of intelligence in producing the negative TASC-IQ relationship, then various measures of intelligence, assumed to vary in their tendency to arouse anxiety, should relate to test anxiety similarly.

2. If intelligence is the dominant etiological factor in the negative TASC-IQ relation, subjects equated in intelligence should not
vary in performance on intellectual tasks in any way other than randomly and, specifically, should not vary according to their level of anxiety.

3. If test anxiety can be appraised in a group of intellectually superior subjects, the view that intelligence is the etiologically significant factor in the negative relationship would lead one to expect that in such a group the correlation between test anxiety scores and intelligence would be of zero magnitude.

The studies by Zweibelson and by Lighthall et al. (6,2) strongly support the first argument in that significant differences between correlations were found for various measures of intelligence, which varied in content, format, and method of administration. The second argument is supported by the study of Waite et al. (5) in which high anxious subjects were matched with low anxious subjects on the basis of intelligence scores derived from the Otis Beta group test. In a paired associate learning task, the low anxious group learned more rapidly than did the high anxious group; therefore it was concluded that intelligence was not enough to explain individual differences in the learning task. Support for the third argument is gained in the study reported by Mandler and Sarason (3). In this study, utilizing the undergraduate student body of Yale College, a rather homogeneous group in intellectual ability, a negative correlation was found to exist between degree of test anxiety and level of performance on the Henmon-Nelson Test of Mental Ability.

Considered together the above presented results are certainly
supportive of the conclusion that test anxiety and not intelligence level produces the negative TASC-IQ relation, and thus allows the conclusion that the negative TASC-IQ relation found to exist in the present study is suggestive that test anxiety has an interfering effect upon general intellectual functioning.

Of particular concern in the present study was an evaluation of the effects of test anxiety upon various kinds of intellectual functioning, such as could be evaluated through an analysis of the relationship between test anxiety and performance on the various WISC subtests. Results of this study confirm that test anxiety affects various kinds of problem-solving situations differentially.

Of the eleven subtests of the WISC, four of the six verbal subtests were found to be negatively correlated at a significant level with TASC scores, while two of the five nonverbal subtests were found to correlate significantly in a negative direction with TASC scores. Perhaps performance is impaired on a greater number of verbal skills than nonverbal skills because of the test-like nature of the verbal subtests. The verbal subtests are saturated with test-like cues or attributes, and therefore the youngster with high test anxiety is likely to perform more poorly on tasks of this nature. Conversely, the nonverbal subtests have a more game-like quality and may not be perceived as strongly by the individual as tests. The previously cited study by
Zweibelson (6) relating TASC scores to the Davis-Eells Games and the Otis tests lends support to this viewpoint.

The verbal subtests having a significant negative correlation with TASC scores were Information, Arithmetic, Similarities, and Vocabulary. In administering these particular subtests the examiner is able to give the subject few clues as to the adequacy of his response and at times, particularly on the Vocabulary subtest, the examiner questions in a nonleading manner the response of the subject. It would seem these testing circumstances would impair the performance of the high test anxious child. It is interesting to note that the Comprehension subtest, which involves the ability to formulate acceptable responses to practical situations and problems, did not correlate negatively at a significant level with TASC scores. One explanation for this result might be the presence of culturally familiar stimuli to which the subject perceives himself as being more adequately able to respond correctly.

An unexpected finding of the study was the failure of the Digit Span subtest to correlate negatively with TASC scores since this subtest is frequently interpreted clinically as being susceptible to the influence of anxiety. The Digit Span subtest was also not found to correlate significantly with scores on the Children's Manifest Anxiety Scale in a study by Hafner, Pollie, and Wapner (1). It seems probable that the tendency for the Digit Span subtest to be
interpreted clinically as being susceptible to the influence of anxiety is a result of generalizations from adults' performance on similar tasks rather than as a result of research findings involving the use of children as subjects. Findings of the present study and the study with the CMAS point up the inadvisability of generalizing from adults' performance to children's performance in making clinical interpretations.

Of the nonverbal subtests, Picture Arrangement and Object Assembly were found to be negatively correlated at a significant level with test anxiety. In both of these subtests, the individual is presented with test material which he must structure in a meaningful way and he is provided with no guides or patterns for his productions. In other words, the structure is rather loose and the child must provide his own structure for the tasks, having no pattern to follow, such as he has on the Block Design and Coding subtests. Further, it is difficult for him to evaluate the correctness of his productions on these tasks. The significant negative correlations obtained on these two subtests indicate that test anxiety is likely to be more interfering in tasks in which structure is loose, few cues are available to the individual, and in which he is unable to judge the correctness of his response.

In conclusion, results of the present study indicate general intellectual functioning is susceptible to the effects
of test anxiety. Further, test anxiety was found to affect performance on various kinds of intellectual tasks differentially.

Summary

The primary purpose of the present study was to determine the relationship between scores on the Test Anxiety Scale for Children and scores made on the Wechsler Intelligence Scale for Children. The effects of test anxiety upon general intellectual functioning were assessed, as well as the effects of test anxiety upon various kinds of intellectual functioning as can be evaluated through an analysis of the WISC subtests. WISC scores were taken as a criterion measure of intelligence, and correlations between these scores and TASC scores were computed. The sample for the study was composed of fifty children referred for problems in learning, reading, emotional adjustment, and/or behavior to the educational clinic of a large school system. Correlation coefficients were obtained between TASC scores and WISC Verbal Scale, Performance Scale, and Full Scale IQ's, as well as between TASC scores and the various subtests of the WISC. The significance of correlation coefficients was determined by using the t-test. The 5 per cent level of significance was chosen as the lower limit for determining significance of the correlation coefficients.
The hypothesis that Verbal Scale, Performance Scale, and Full Scale WISC IQ's would have significant negative correlations with TASC scores was accepted. Correlation coefficients between TASC scores and Verbal Scale, Performance Scale, and Full Scale WISC IQ's were found to be significant at the 5 per cent level of confidence.

The various subtests of the WISC were found to be related differentially to TASC scores. With the exception of the Digit Span and Picture Completion subtests, all WISC subtests were found to correlate negatively with TASC scores; however, of the nine subtests which correlated negatively with TASC scores only six of the subtests were significantly correlated.

It was concluded that TASC scores are significantly related to IQ and various subtest scale scores on the WISC. Additionally, the degree of relationship found to exist between TASC scores and WISC scores allowed for prediction of test anxiety on the basis of WISC subtest scores.
CHAPTER BIBLIOGRAPHY


BIBLIOGRAPHY

Books


Articles


