Hypnosis: Applications for Academically At-Risk African American High School Students

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Hypnosis has applications for at-risk African American high school students. Sapp (2004b), Sapp and Hitchcock (2001), and Sapp and Hitchcock (2003a, 2003b) have presented extended group and individual data on hypnotizability with African American college students, but there are not articles that describe applications of hypnosis with at-risk African American high school students. This article explores applications of hypnosis with at-risk African American high school students, and it expands the multicultural application of this procedure. **(Sleep and Hypnosis 2004;6(2):92-97)**

Key words: hypnotizability, African American high school students, adolescents, at-risk

INTRODUCTION

This article discusses applications of hypnosis with at-risk African American high school students. This paper is divided into the following sections: Hypnosis With European High School Students, Test Anxiety in Academically At-Risk African American College Students, Test Anxiety with At-Risk American High School Students, Hypnosis with African American College Students, Hypnosis: Applications for Academically At-Risk African American High School Students, and Conclusions.

Hypnosis With European High School Students

Several studies have reported applications of

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hypnosis with European high school students. Hart (1) reported the effects of hypnosis used in a group context to manage examination anxiety. Twenty-eight British students, between the ages of 13-17, attending an examination anxiety workshop received 30 minutes of hypnosis, and students at a 4-month follow-up reported that hypnosis was helpful in controlling anxiety before and after the examination. Nath and Warren (2) used hypnosis as an adjunct to cognitive-behavior therapy and a stress management program for anxiety and stress with of high school students in England. Students reported less anxiety after the program, and their neighbors reported changes in these students.

Stanton (3) examined the effectiveness of a 5-step self-hypnosis technique in reducing test anxiety with 40 Australian high school students. Students were matched on gender and scores on the Test Anxiety Scale and were randomly assigned to an experimental and control group. Students in the experimental group learned self-hypnosis. Follow-up data after 6 months found a significant reduction of

test anxiety for the hypnosis group but not for the control group. Benson (4) described how hypnosis could be used by school psychologists in England, and she provided several case studies of how hypnosis could be applied within a high school setting. Stanton (5) reported the effectiveness of a hypnotic technique for reducing test anxiety using 60 Australian high school students.

Test Anxiety In Academically At-Risk African American College Students

Sapp (6) defined test anxiety as a special case of a general anxiety disorder that has phenomenological, physiological, and behavioral reactions to fear of failure, and it is the harsh emotions that have physiological and behavioral correlates that a student experiences during evaluative situations. Test anxiety interferes with the processing of information. Moreover, measures of test anxiety are negatively correlated with achievement and intelligences measures.

Mandler and Sarason (7) stated that test anxiety was a single latent trait and developed the Test Anxiety Scale (TAS) to measure this underlying trait. Spielberger (8) questioned Mandler and Sarason's unidimensional theory of test anxiety and theorized and substantiated through principal components analyses that test anxiety, as measured by the Test Anxiety Inventory (TAI), is composed of two factors–worry test anxiety and emotionality test anxiety. Worry test anxiety is a student's cognitive concern about performance whereas emotionality is the physiological reaction to anxiety (6,9-12). Through principal components analyses several studies have found that the TAI consists of two factors – worry test anxiety and emotionality test anxiety (6).

Sarason (13) expanded on Spielberger's notion of worry test anxiety and emotionality test anxiety, and he assessed two additional constructs namely "bodily arousal" and "bodily tension" with his Reactions to Tests (RTT)

inventory. To summarize, Sarason viewed test anxiety as consisting of four factors – worry test anxiety, emotionality test anxiety, bodily arousal, and bodily tension. Recently, Spielberger and Vagg (14) presented a transactional model of test anxiety, and this comprehensive model of test anxiety specifies the interpersonal perceptions and cognitions, informational processing, and retrieval mechanisms that mediate the effects of worry test anxiety and emotionality test anxiety on academic performance.

Worry test anxiety is the most important construct of test anxiety and worry test anxiety tends to be negatively correlated with academic performance. Moreover, worry test anxiety is a stable personality disposition that interferes with cognitive performance and triggers autotomic reactivity and maintains test anxiety (6).

Spielberger (8) provided normative data for the TAI, and he reported validity coefficients in the .80 range and reliability measures also within the .80 range. Worry test anxiety has validity coefficients in the .30 range and emotionality validity indices within the .20 range. Through normative studies of European American college students, Spielberger (8) found that worry test anxiety was unidimensional from factor analytic studies. What is not known is the factor structure of worry test anxiety with academically at-risk high school students and academically at-risk African American college students. Finally, reliability data have not been provided for either group. The purpose of this study is twofold–first, to explore the factorial validity of worry test anxiety with academically at-risk high school students and to provide reliability data for these students. Second, to determine if the factor structure of worry test anxiety is unidimensional for at-risk African American college students and to provide reliability data for their scores. Therefore, this paper will describe two studies–one on academically at-risk high school students, and a second study on academically at-risk African American college students.

TEST ANXIETY WITH AT-RISK AMERICAN HIGH SCHOOL STUDENTS

STUDY I
METHODS

One hundred and one high school students were identified as being educationally and economically at-risk within an Educational Opportunity Program at a northeastern university, and this program was established to provide academic assistance for educationally and economically disadvantaged students. When this program was conducted, these high school students were enrolled into a five-week developmental program. Forty percent of the students were African American, 32% were Latino, 17% were Asian American, and 11% did not identify their racial heritage. Forty-eight percent of the students were male and 52% were female. Students were seniors in high school, ranging between 17 and 19 years of age. The majority of these students were from a large metropolitan urban area located within a large northeastern state, and the median family income of participating students was below $17,000.

Independent Variables

Students were given diagnostic tests to assess writing, mathematical, and reading ability as part of their summer program.

Dependent Variable

The worry subscale of the Test Anxiety Inventory (TAI) was used to measure worry test anxiety after students had taken their diagnostic tests.

RESULTS

Coefficient alpha reliability for the items of the worry subscale of the TAI was .82, and the method provided by Thompson (15) was used to find a 95% confidence interval for the population value of coefficient alpha. The lower limit of this value was .77 and the upper limit was .78. These reliability indices suggest that the items of the worry subscale were reliable; however, these values were somewhat lower than the results reported by Spielberger of .88. A principal components analysis was performed on the worry subscale of the TAI and two factors emerged. Unlike the results of Spielberger, one factor did not emerge.

STUDY II
METHODS

Two hundred sixty-six undergraduate at-risk African American college students (162 females and 104 males) at a primarily African American four-year college participated in this study. All students were identified as academically at-risk. The median age was 19 and all students received extra credit for their participation.

Procedures

Participants completed the worry subscale of the TAI before taking examinations within their college courses.

RESULTS

Coefficient alpha reliability for the eight items of the worry subscale of the TAI was .85, and a 95% confidence interval was calculated for the population reliability coefficient, and the lower limit of this interval was .82 and the upper limit was .88. A statistical significant test for the reliability point estimate of .85 was tested against the value provided by Spielberger of .88, $F=.81$, $p=.8230$. Readers should notice that this test did invoke the null hypothesis that the coefficient alpha reliability was zero; rather, the point estimate coefficient alpha of .85 was tested against the hypothesized value of .88 from Spielberger, and the two reliability coefficients did not differ statistically from each

other (15,16). A two group MANOVA was used to see if males and females differed on the 8 items of the worry subscale of the TAI, Wilks' Lambda=.960, p=.166. Males and females did not differ on the 8 items of the worry subscale. Results of a principal components analysis confirmed that the worry subscale of the TAI was unidimensional and these results are commensurate with the results and theory of Spielberger.

DISCUSSION

The results of two studies–one with academically at-risk high school students and another with academically at-risk African American college students–found that items of the worry subscale of the TAI were reliable and the factor structure of the worry subscale for academically at-risk college students did conform to the hypothesized theory that the worry subscale of the TAI is unidimensional. Unlike previous studies, confidence intervals about score reliability coefficients were provided along with a statistical significance test for the reliability estimate for the academically at-risk African American college students.

Now, data exists which shows that the worry subscale can be used to reliably measure worry test anxiety for academically at-risk high school students and academically at-risk African American college students. Additional research is needed that explores the dimensionality or factor structure of worry test anxiety with these students.

This study found that worry test anxiety can be accurately assessed with academically at-risk high school students and African American college students and the implications for administrators, school counselors, counseling psychology and personnel workers is that if these students experience worry test anxiety, it can be assessed and Sapp (6,9-11,17,18) suggested that cognitive-behavioral interventions may be useful because worry test anxiety is primarily a cognitive construct.

Specifically, this writer recommends a combination of relaxation exercises and study skills training (6). Moreover, supportive counseling could be provided before examinations to reduce test anxiety. For example, school counselors could work with groups of students and allow them to express their fears of examinations. In summary, a combination of supportive counseling, study skills training and relaxation exercises could be part of a package to allay worry test anxiety.

There are limitations of these studies. The sample size with the first study of academically at-risk high school students could have produced non-generalizable results with the principal components analysis. However, Sapp (16) pointed out that principal components analysis will yield reliable results when Q/P<.30, where P is the number of variables and Q is the number of factors. For the first study, Q/P=2/8=.25, which is less than .30. In addition, these results are accurate when compared to Kaiser's rule of using eigen values greater than one as the number of factors to retain (19).

Research is needed that will explore which types of interventions reduce worry test anxiety with academically at-risk high school students and academically at-risk African American college students. In closing, this study suggested that worry test anxiety is the most important kind of test anxiety and cognitive-behavioral interventions or counseling are recommended to reduce worry test anxiety. Finally, as recommended by Obiakor and Utley (20), students with exceptionalities should be reliably assessed; therefore this paper is a step in this direction. The next section discusses hypnosis with African American college students.

Hypnosis With African American College Students

Sapp (21,22), Sapp and Hitchcock (23,24), and Sapp and Hitchcock (25) assess group and

individual measures of hypnotizability with several hundred African American college students. These studies found that standardized group and individual hypnotizability measures can produce reliable results with African American college students. Unfortunately, there are not any studies or papers that describe applications of hypnosis for academically at-risk African American high school students.

Hypnosis: Applications For Academically At-Risk African American High School Students

The literature is replete with definitions of the "at-risk" student populations (6). For African American high school students, research suggests that the strongest predictors of these students dropping out of school and becoming academically at-risk are school performance and serious behavior problems in school. Many academically at-risk high school students live in socially and economically disadvantaged home situations that significantly impede their emotional, social, and academic growth and development. If these problems can be prevented or corrected, these students will have a better chance of succeeding in school and in life.

Academically at-risk high school students have issues with their academic self-concepts, test anxiety, and issues with learning. Specifically, cognitive-behavioral hypnosis would have many applications with these students. For example, these students could be assisted with study skills training through cognitive-behavioral hypnosis. Sapp (6) found that these students benefited from standardized forms of studies skills training, but within this context, they could be augmented with cognitive-behavioral hypnosis. In addition, relaxation procedures from hypnosis can be used to reduce anxiety and stress with these students, and these procedures could easily be adapted to the classroom. Moreover, the ABCs of REBT could be implemented with these

students via hypnosis. The ABCs would help these students understand that much of their failure in school is related to irrational beliefs. For example, these students tend to have test anxiety, and they reindoctrinate themselves with irrational beliefs such as "I must pass these tests. My life is based in succeeding on these tests."

Moreover, these students tend to have low levels of self-acceptance, and they tend to sabotage their plans that could lead to success on exams. At-risk African American high school students tend to hold three irrational beliefs about test anxiety. First, many of these students believe that they cannot succeed without being "A" students. Second, these students assume that it is easier to avoid exams and other academic situations than to face them. On a hypnotic level, it can be emphasized to these students that being personally responsible can improve academic performance, but avoiding exams and other academic situations will increase one's sense of fear and anxiety.

Third, these students tend to assume that it is the end of the world when they do not perform well on exams. It is important to teach these students that failures on exams are just that–failures–and they have nothing to do with one's personal self-worth. In addition, when these students learn to tolerate their failures on exams, they tend to develop high levels of frustration tolerances and a decrease in test anxiety, and eventually, their test performance improves.

CONCLUSIONS

This article described applications of hypnosis with at-risk African American high school students. These students tend to experience high levels of text anxiety and have difficulties with studying. Data exists for group and individual measures of hypnotizability with African American college students, and if these data generalize to high school at-risk African American college students, cognitive-behavioral hypnosis could be used with these students.

Sapp (11) described in detail the irrational beliefs that can lead to academic failure with African American middle school students who are academically at-risk. These generalizations should apply to academically at-risk African American high school students. This paper suggested that cognitive-behavioral hypnosis could be used with students to improve study skills, reduce anxiety and stress, reduce test anxiety, and to change irrational beliefs related to school failure. In terms of future research, data are needed that test the effects of hypnosis with academically at-risk African American high school students.

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