

FACTORS INFLUENCING THE PURSUIT OF EDUCATIONAL OPPORTUNITIES IN AMERICAN INDIAN STUDENTS

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Abstract: American Indians are the most under-represented minority group across all levels of education. The present study investigates sociocultural, psychological, and nontraditional academic factors that influence American Indian students' decisions to pursue higher education (e.g., vocational training, college). Nineteen American Indians with previous academic difficulties completed several self-report measures at the beginning of an eight-week Job Corps program. The results indicate that students who pursue educational opportunities have a more realistic self-appraisal of their academic abilities and are supported by others (e.g., family, mentors) in their academic pursuits. A hypothesized link between self-appraisal and support suggests that the availability of a mentor and/or family support is crucial in American Indian students' decision to pursue educational opportunities.

The American Indian population is the youngest and fastest growing racial minority group in the United States, with a birth rate twice that of the general population (Yates, 1987). American Indians also represent the most socioeconomically disadvantaged population in this country. Over one-quarter of the American Indian population lives below the poverty line, compared to only about 12% for all other races (Axelson, 1993; Yates, 1987; Young, 1994). Furthermore, research has suggested (e.g., Sinha, 1990) that poverty affects not only monetary aspects of life, but encompasses physical, social, and psychological domains as well.

One reason for these impoverished conditions is that American Indians are under-represented at all levels of education and evidence disproportionately higher school attrition rates and receive lower grades,

compared to Anglo students and other culturally diverse student populations (Sanders, 1987; U.S. Senate Select Committee on Indian Affairs, 1985; Young, 1994). American Indian students tend not to be as academically prepared upon entering college as other students and are more likely to drop out, if they have an established poor academic history, poor study habits, and come from uneducated families (Astin, 1975; LaCounte, 1987).

The cumulative effect of the lack of education and unemployment is often a self-perpetuating cycle in which generations of American Indian children are at risk for continued poor academic performance and unemployment (Astin, 1982). Considering the steady and rapid growth rate of the American Indian population, it is likely that these problems will be magnified in the future. To interrupt this cycle, efforts must be made to develop more effective means of retaining American Indian students in the educational system. Further, because traditional measures of academic success (e.g., GPA, standardized test scores) are not sufficient to predict admission or retention of American Indian students in higher education (Lunneborg & Lunneborg, 1986), the identification of specific factors associated with academic success in the American Indian population is needed.

A number of variables have been identified in the literature that may be related to academic achievement and the pursuit of academic opportunities in American Indian students. For example, Tracey and Sedlacek (1987) have examined a variety of noncognitive variables that appear to predict short-term and long-term academic success in both minority and non-minority college students. Variables such as realistic self-appraisal, personal support, and previous leadership experiences have been found to be more predictive of retention in both Black and White college students than more traditional academic indices (i.e., SAT scores). Also, because these nontraditional factors appear to be less culturally biased than traditional measures of academic performance, they may prove to be important predictors of academic success for American Indian students.

Oetting and Beauvais (1991) found that identification with both Anglo and the American Indian culture was significantly related to "positive school adjustment" (p. 674). Importantly, however, this study examined American Indian students who were attending a school with a large American Indian population. No known study has investigated the role of cultural identification in predicting educational success in American Indian students attending largely Anglo schools. Thus, the influence of American Indian and Anglo cultural identification on academic pursuits has not been fully explored across contexts.

Further, traditional psychological variables have been shown to influence academic achievement. For example, Peterson and Barret (1987) found that college freshmen who explain negative academic events with internal, stable, and global causes achieve lower grades than students employing less pessimistic causal explanations for their academic failures.

In other words, students who adopted a more helpless stance in response to aversive academic events (e.g., failing a test) were more likely to perform poorly on subsequent academic tasks. In a similar vein there is evidence to suggest that the prolonged socioeconomic and educational deprivation experienced by minority individuals in this country may predispose them to acquire this helpless cognitive set (e.g., Mukerjee, Chatterji, & Gupta, 1991; Nolen-Hoeksema, 1992). Unfortunately, the role of cognitive appraisal variables like explanatory style, in academic success has not been examined in American Indian populations.

It is apparent that a variety of factors, including traditional psychological variables (i.e., attributional style), less traditional academic measures (i.e., noncognitive indices), and sociocultural factors (i.e., cultural identification and levels of perceived deprivation), may influence academic success in American Indian students. The goal of the present study is to examine the influence of these variables in the decisions of "at-risk" American Indian high school students who attend college or vocational schools. It is hypothesized that American Indian students who pursued further educational opportunities would endorse higher levels of Anglo cultural identification, would demonstrate more optimistic explanations of life events, and would evidence more noncognitive academic skills than students who did not pursue higher education opportunities.

Methods

Subjects and Procedures

The sample consisted of thirteen male and six female "at-risk" American Indian high school seniors and recent graduates participating in a Job Corps program. Individuals in this program are considered to be "at-risk" because they have all experienced previous academic difficulties in a public high school setting, typically behavioral problems (e.g., suspensions, truancy, dropping out, etc.). The Job Corps program consisted of eight weeks of didactic and on-the-job skills training for students. Additionally, the program offered assistance in seeking further educational opportunities (e.g., college and vocational-technical training) and a \$1,000 incentive toward tuition for students successfully completing the program and enrolling in a college or vocational-technical school.

The subjects averaged 18.9 years of age (ranging from 17 to 21) and were from three tribes: Otoe-16, Kiowa-2, Papago-1. Sixty-five percent of the subjects were from middle- to upper-middle socioeconomic backgrounds and the remaining 35% came from lower-middle to lower socioeconomic backgrounds (Hollingshead, 1958). Subjects were given a packet of self-report instruments in a group format during the first week of the Job Corps program. Subjects were followed up at the end of the eight-

week program to determine those who pursued educational opportunities (i.e., enrolled in college or vocational school).

Instruments

Cultural Identification. The Cultural Identification Scale (CIS) is a four-item instrument that assesses individuals' cultural identification across five different cultures (e.g., Mexican-American, American Indian, Black-American, Anglo-American, and Asian-American) (Oetting & Beauvais, 1991). For example, the individual is asked "Is your family a success..." in the American-Indian way of life, in the African-American way of life, etc. Items are rated on a four-point Likert scale (e.g., none at all, not much, some, a lot) and are summed to determine the extent to which the individual endorses traditional cultural beliefs and values. In the present study, only the American-Indian and Anglo-American dimensions were examined.

The four Likert-style items were taken from Oetting and Beauvais' (1991) larger Cultural Identification Scale. The authors report internal consistency estimates in the high .80s with adequate concurrent and discriminant validity for this four-item version of the scale.

Perceived Deprivation. The Perceived Deprivation Scale (PDS) used in the present study was adapted from the Prolonged Deprivation Scale developed in India by Mukerjee et al. (1991). The PDS is a 12-item measure that assesses the degree to which individuals believe that their upbringing was deprived in certain areas of living (e.g., money, clothing, family support, peer support, religious support, etc.). The PDS does not measure socio-economic status (SES) but, rather, an individual's perception or his/her deprivation across several areas. For example, an individual from a low SES may perceive that his/her needs were met in all areas even though the family had little money. Respondents rate the extent to which their needs were met/not met in specific areas on a six-point Likert scale. Response options range from "needs met all of the time" to "needs not met at all." The PDS yields a total deprivation score when the twelve items are summed. Although no psychometric data are available for our measure, the original Prolonged Deprivation Scale has demonstrated adequate discriminative validity and correlates strongly with academic achievement (Mukerjee et al., 1991).

Attributional Style. The Attributional Style Questionnaire (ASQ) (Peterson et al., 1982) is a 48-item instrument that assesses individuals' causal explanations for events. These causal explanations provide insight into the respondents' view of their control over the environment and the stability of this control. The respondent imagines six positive and six negative hypothetical events happening to him/her (e.g., "A friend treats you badly"). The subject then provides a major cause for each event and rates it on a seven-point scale along internal, stable, and global attribution

dimensions (e.g., Abramson, Seligman, & Teasdale, 1978). The ASQ yields three attribution dimension scores (i.e., internal, stable, and global) for positive events and three for negative events. Additionally, two composite attribution scores (i.e., composite negative and composite positive) can be obtained by summing each of the three dimension scores for negative and positive events, respectively. The composite attribution scores were utilized in the present study. Peterson et al. (1982) reported that the internal consistency of the ASQ ranges from .72 to .75. The authors also reported adequate test-retest reliability.

Noncognitive Academic Factors. The Noncognitive Questionnaire (NCQ) assesses nontraditional academic factors believed to contribute to success in college (Tracey & Sedlacek, 1984). The NCQ consists of two items tapping academic expectations, eighteen Likert-type items concerning expectations about the educational setting and self-assessment, and three open-ended questions assessing goals, past accomplishments, and group memberships. The NCQ yields eight factor scores: (a) positive self-concept, (b) realistic self-appraisal, (c) understanding and dealing with racism, (d) preference for long-term vs. short-term goals, (e) availability of a strong support person, (f) successful leadership experience, (g) demonstrated community service, and (h) knowledge acquired in a field. Good test-retest reliability and predictive validity for the NCQ has been reported by the authors. The NCQ has been found to be a better predictor of GPA in the third semester of college than SAT scores for both White and Black students (Tracey & Sedlacek, 1987).

Results

To test the internal consistency of the measures Cronbach's alphas were calculated for each of the measures (see Table 1). Two multivariate analysis of variance (MANOVA) were performed between those subjects who pursued further educational opportunities (ED group; $n=7$) and those who did not (NED group; $n=12$). The first MANOVA examined differences between indices of socioeconomic status, cultural identification, attributional style, perceived deprivation, and gender. None of these variables were significantly related to subjects' decisions to pursue higher education. Due to the number of factors, a second MANOVA was conducted for noncognitive factors. This analysis indicated significant differences between the two groups [$F(1, 17)=3.66, p=.02$] (see Table 2). This MANOVA was followed up with a series of univariate analyses of variance (ANOVAs) which found significant differences on the Realistic Self-Appraisal [$F(1, 17)=15.57, p=.001$] and Availability of a Strong Support Person factors [$F(1, 17)=6.86, p=.02$] on the NCQ. These findings suggested that subjects in the ED group possessed a greater ability to recognize, accept, and correct academic deficiencies.

The subjects in the ED group were also more likely to report the presence of a person or persons who strongly supported their academic goals.

Table 1
Cronbach Reliabilities for Measures

American Indian culture	.86
Anglo culture	.92
Perceived Deprivation	.88
Attributional Style Questionnaire	.66
Noncognitive Questionnaire	.74

Table 2
Means and Standard Deviations of Noncognitive Academic Factors

Factors	Group	
	NED	ED
Availability of Support	11.25(1.86)	12.00(1.08)*
Community Service	3.25(.45)	3.29(1.11)
Coping with Racism	17.58(1.98)	18.43(4.16)
Goal Preferences	12.67(2.81)	13.43(1.51)
Knowledge in a Field	4.50(1.24)	4.14(1.35)
Leadership Experience	6.83(2.04)	7.86(1.07)
Realistic Self-Appraisal	9.08(1.38)	11.71(1.50)**
Self-Confidence	16.50(3.83)	18.00(1.41)

* $p < .001$

** $p < .02$

Discussion

The goal of the present study was to evaluate the influence of sociocultural, nontraditional academic, and psychological variables on "at-risk" American Indian students' decisions to attend college or vocational schools. The proposed hypotheses that students obtaining further education would endorse more optimistic attributional styles, higher Anglo cultural identification, and lower levels of perceived deprivation were not supported. However, the hypothesis that students pursuing higher education would

possess more noncognitive academic skills was partially supported. Specifically, significant mean differences were found between the two groups (i.e., ED and NED) on two non-cognitive factors (i.e., Realistic Self-Appraisal and Availability of a Strong Support Person).

Subjects in this study who pursued further education upon completion of the Job Corps. program exhibited higher scores on the Realistic Self-Appraisal and Availability of a Strong Support Person factors than those that did not continue their education. These findings suggest that students pursuing higher education have insight into their academic abilities and reflect on their academic performance. They possess a greater ability to recognize and accept academic deficiencies. These students are also more likely to work to correct their deficiencies. Students pursuing higher education are also more likely to be supported in their academic goals from a significant person (e.g., parent, teacher, mentor).

It appears that specific noncognitive academic factors facilitate the attainment of higher education in American Indian students. Moreover, the Realistic Self-Appraisal and the Availability of a Strong Support Person factors, which differentiated the two groups, may reflect similar processes. To illustrate, a person who is seen by the student as supporting his/her academic goals is also in a better position to help the student recognize and overcome academic weaknesses. Similarly, Atkinson, Neville, and Casas (1991) found that one of the primary benefits of a mentoring relationship for minority students was an increase in the students' self-image. Our findings, and those of previous authors, point to the particular importance of perceived support of academic pursuits and the role of mentors in minority students' decision to obtain higher education.

Our findings need to be reviewed in light of several methodological considerations. First, although significant findings were observed, the power of the statistics employed in this study was limited by a small sample size. For example, the lack of significant differences between the groups across Anglo identification and attributional style may have been due to the small number of subjects in our sample. Also, the generalizability of the results of this study may be limited to "at-risk" American Indian students, that is students who have encountered difficulties within a public school setting, and not to the larger population of American Indian students. Additionally, because there is significant group and individual variability among American Indian peoples across language, values, and beliefs, our findings may not be applicable to all American Indians. Because this study explored the use of psychosocial and academic constructs (e.g., perceived deprivation, attributional style, and noncognitive factors) that are largely untested within American Indian populations, the utility and validity of these measures may be questioned. Lastly, the scope of this study was limited. For example, it is possible that other extraneous factors (e.g., quality of previous education,

education level of parents, intelligence, etc.) may also play a significant role in this process, as others have suggested (e.g., Astin, 1975; LaCounte, 1987).

However, given these limitations, our results suggest that noncognitive academic factors play an influential role in the pursuit of higher education of American Indian students. Although the initial work has begun, the utility and validity of these psychosocial and academic constructs within American Indian populations needs further exploration. Future studies in this area should include larger numbers of subjects to allow for a more detailed view of the psychological and sociocultural processes that influence academic pursuits in American Indian students. Additionally, longitudinal methods should be employed to investigate developmental changes in the specific factors associated with academic achievement and the decision to pursue higher education opportunities. Lastly, these factors should be evaluated with a wider range of American Indian students, including middle school, high school, and college students from different tribes and geographic regions of the country.

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Author Note

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