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ABSTRACT

Recognizing that voluntary withdrawal from college is inextricably associated with achievement needs, this study used achievement motivation theory to examine: (1) whether women function differently from men in achievement-oriented situations; (2) whether they differ in their reasons for leaving college; and (3) whether achievement level, as measured by grade-point average, is differentially related to the problems reported by each sex. The Problems Inventory section of the Exit Interview Questionnaire provided the primary source of data which was later factor analyzed. The current research reveals quite clearly that male and female students have experienced different types of problems prior to the decision to withdraw from college. Women seemed more concerned with personal adequacy, performance, or specific personal needs in their environment, while men more often reflected philosophical concerns related to education and career choice, or problems of a financial or physical nature. (Author/LAA)

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SEX DIFFERENCES ON FACTOR DIMENSIONS RELATED TO WITHDRAWING FROM COLLEGE

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Research efforts related to withdrawal from college have reflected a trend in recent years toward multivariate studies which focus on describing the types of students who withdraw from college -- in terms of background variables, test scores and grades, or personality characteristics. While presumably aimed at providing information which will be useful in counseling students concerning school and career problems, such studies have all too frequently been deficient in this respect due to a failure to examine the reasons, or motivation underlying withdrawal decisions. the case of female students especially, we have had to accept blanket appraisals of dropouts and rather superficial explanations of behavior. In his generally comprehensive review of the research related to college withdrawals, for example, Spady (1970) concluded that the higher rate of withdrawals among females stems from "necessity". Based on the argument that men feel more constrained to pursue a career, he suggested that "women are both freer todeal with college as an intrinsically rewarding experience and face less pressure to finish." Summerskill (1962) had noted simply that women more often withdraw for "non-academic" reasons than do While such observations seem to possess a certain amount of face validity, they nevertheless fail to speak to the basic issue of why students -- male or female -- leave college, even when previous academic performance has been acceptable.

Recognizing that this phenomenon of voluntary withdrawal from

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college is inextricably associated with achievement needs, the current study has turned to achievement motivation theory for a more meaningful context within which to examine the problem. Hore specifically, impetus for the current work has come out of a growing body of research literature which advances the general thesis that women function differently than men in achievement-oriented situations and that achievement by women in such situations is often inhibited by a "motive to avoid success." This latter concept was developed by Horner (1968, 1972) who noted that although measures of resultant achievement tendency, based on motive to succeed and motive to avoid failure (see Atkinson, 1958), predicted achievement-oriented behavior in men, they consistently failed to predict such performance for women. Her research indicates, moreover, that a measure of motive to avoid success will accurately predict women's performance in achievement-oriented situations. She found that this motive influenced more than 62% of the females in her college sample, compared with fewer than 10% of the males. Horner also found a higher incidence of motive to avoid success among women who were Honors students than among those who were not, presumably because the threat of success and its negative consequences were more imminent for the former.

Objectives of the Study

Although Horner's results have been adequately demonstrated in the laboratory, the current study provides an opportunity to test the theory using a real-life criterion of motive to avoid success. Since college clearly represents an academic achievement situation, it was thought that voluntary withdrawal from college might



represent an avoidance response to such a situation. Evidence of a motive to avoid success might thus be found in the reasons which students have for withdrawing from college. This study has aimed to determine whether, and in what ways, women and men differ in their reasons for leaving school. More specifically, the research has sought:

- (1) to identify problem areas -- personal, social, academic, and environmental -- reported by a group of students who voluntarily withdrew from The University of Texas at Austin during 1970 and 1971;
- (2) to determine whether there are significant sex differences on the self-reported frequencies and severity of the problems so defined; and
- (3) to determine whether achievement level, as measured by grade-point average, is differentially related to the problems reported by each sex.

It is expected, of course, that should differences in the types of problems reported by men and women occur, the problems reported more frequently by women -- and particularly by women at higher levels of achievement -- may reflect the influence of the motive to avoid success.

Subjects

Subjects for this study were 1,368 students (886 males and 482 females) who voluntarily withdrew from The University of Texas at Austin during the four semesters of 1970 and 1971. All had been enrolled in the College of Arts and Sciences or, during the 1971 Fall Semester, in one of the four Divisions into which the College



of Arts and Sciences had been divided. All had proceded through the official channels for withdrawal and had completed the Exit Interview Questionnaire from which the data for this study were taken.

In order to achieve a more homogeneous sample which would conform to limitations of the theoretical framework of this study, 136 subjects belonging to racial minority groups and 253 subjects who were 25 or older, were excluded from the original sample of 1,757 students.

Data Source

The Problems Inventory section of the Exit Interview Questionnaire provided the primary source of data. It consisted of 84
statements of problems covering a wide range of topics, from complaints about specific aspects of the University situation to conflicts with friends, spouses, or parents, personal problems, health,
etc. Students were asked to rate these problems in terms of the
level of their concern for each during the course of their enrollment at the University. A five-point scale was used for the rating,
with a score of 1 indicating "not a problem" and a score of 5 indicating "a very important concern." It was believed that these ratings of problems might more accurately reflect reasons for withdrawal than would responses to a question directly concerning reasons for withdrawal, since the latter would be more likely to elicit
defensive reactions.

In order to increase the reliability of results, distribution statistics were computed for each of the items, and those with very little variability were excluded from further analyses. This elim-



ination of items resulted in the following pool of 65 problems used in the current research:

- 1. feeling tired much of the time
- 2. not getting enough exercise
- not getting enough sleep
- 4. not getting satisfactory diet
- being underweight or overweight
- 6. special health or medical problems
- 7. employment taking too much time
- 8. too little money for clothes
- 9. too little money for recreation
- 10. too little support from home
- 11. too many financial problems
- 12. dislike financial dependence
- 13. unable to take courses I want
- 14. forced to take courses I don't want
- 15. too many rules and regulations
- 16. courses unrelated to each other
- 17. courses irrelevant to my life
- 18. too many poor teachers
- 19. too many dull classes
- 20. teachers lacking personality
- 21. teachers lacking interest in students
- 22. teachers with poor grasp of subject
- 23. no study space in quarters
- 24. lacking privacy in quarters
- 25. clash of opinion with parents
- 26. parents expect too much of me
- 27. can't discuss problems at home
- 28. too little social life
- 29. difficult to meet people
- feeling extreme loneliness
- 31. feeling isolated
- 32. nervousness
- 33. restlessness
- 34. taking things too seriously
- 35. getting low grades
- 36. weak in writing
- 37. slow in reading
- 38. unfair tests
- 39. uncertain about what to study
- 40. uncertain about occupational choice
- 41. poorly planned college program
- 42. doubting value of college degree
- 43. fearing failure in college
- 44. concerned about moral questions
- 45. concerned about religious beliefs
- 46. needing a philosophy of life
- 47. campus too large
- 48. classes too large
- 49. poor advising
- 50. life not well rounded
- 51. little time for recreation



- 52, no time to enjoy art music
- 53. no chance for self-expression
- 54. afraid of making mistakes
- 55. lacking self-confidence
- 56. lacking self-control
- 57. too easily discouraged
- 58. unable to concentrate
- 59. girl/boyfriend problem
- 60. marital problems
- ól. combining school and marriage
- 62. combining school and work
- 63. teachers hard to talk to
- 64. feel no one understands me
- 65. no one to share personal concerns

Analyses of Data

Responses of all 1,368 subjects to the 65 items were factor analyzed using Program FACTOR (Veldman, 1967, 1971) which computes a principal axis, unit diagonals solution with rotation to the Varimax criterion. Initially, all factors with Eigenroots of 1.00 or greater were extracted, according to the method recommended by Kaiser & Caffrey (1965). This solution, however, produced 16 factors and enough evidence of factor fission to indicate rather clearly that over-factoring had occurred. Subsequent analyses led to the use of an Il-factor solution which provided a more efficient and economical structure which also retained the descriptive qualities and psychological meaningfulness of solutions based on more factors. These II factors were labeled: Factor I. Personal-psychological problems, Dissatisfaction with Academic Situations, Factor III. Financial or Employment Problems, Factor IV. Home-Parental Conflicts, Factor V. Career-Related Concerns, Factor VI. Poor Academic Skills or Grades, Factor VII. Health-Related Concerns, Factor VIII. Marital Problems, Factor IX. vissatisfaction with Residence, Factor X. Lack of Time for Extra-Curricular Activities, Factor XI. Religious-Philosophical Concerns. Table 1 shows the Varimax loadings of all



items on each of these factors. Primary loadings, (the highest loading for each item) are underlined.

The responses of male and female students to the 65 problem items were then factor analyzed separately to obtain 11-factor solutions for comparison of structures obtained for males and females. The Varimax factor loadings from these solutions were used as input to Program RELATE (Veldman, 1967, 1969, 1971) which re-rotated the factors obtained for males toward the "target" solution obtained for females. The factor cosine matrix computed for the two solutions prior to this re-rotation indicated a high degree of correlation between the factors obtained for the two groups, but some disparity of the orders in which factors were extracted. The item vector cosines, however, indicated that the re-rotation of the factors obtained for males had resulted in a very close alignment of the two structures. Table 2 shows the cosines for the 65 item pairs. These ranged from .73 to .99, with 44 of the pairs obtaining cosines greater than .90.

Having thus confirmed highly similar factor structures for males and females, Various factor scores were generated for each subject, based on the 11-factor solution obtained for the combined group. Univariate enalyses of variance and a multiple discriminant function enalysis were then computed to determine whether male and female dropmouts did indeed differ in their scores on the 11 factors describing types of problems experienced prior to withdrawal. Program DSCRIM (Veldman, 1967, 1971) was used to perform these analyses.

In addition, single classification analyses of variance were computed to determine whether students at five achievement levels (measured as grade-point averages of below 2.00, 2.00-2.49, 2.50-2.99, 3.00-3.49, 3.50-4.00) differed in their responses to the 11 factors.



These analyses were computed separately for males and females, using Program ANOVAR (Veldman, 1967, 1971).

Results

Table 3 shows the means, F-ratios, and probability levels for the univariate analyses of differences between mean scores of males and females on the eleven factor variables. Seven of the eleven tests indicated significant differences between the groups' scores, and five of these F-ratios were significant at the .01 level, or beyond. The mean scores for females were significantly higher than those for males on four factors: Factor I. Personal-Psychological Concerns; Factor VI. Poor Academic Skills or Grades; Factor IX. Dissatisfaction with Residence; and Factor X. Lack of Time for Extra-Curricular Activities. Males had higher mean scores on Factor III. Financial or Employment problems; Factor V. Career-Related Concerns; and Factor VII. Health-Related Concerns.

The multiple discriminant analysis yielded multivariate means of 1.7465 and 7.3365 for remales and males, respectively. The Wilks Lambda criterion was computed as .926, yielding an E-ratio of 9.883 which was significant beyond the .0001 probability level. This, of course, indicated that it would be extremely unlikely that the differences between males and females on the 11 factor variables could be due to chance.

The correlation coefficients representing degree of relationship between the original factor variables and the obtained discriminant function reflect the results of the univariate analyses but indicate more clearly the degree to which each factor is identified with the discriminant function. These correlations are also shown



in Table 3, in descending order by size. The two highest coefficients were obtained for Factors III and VII, both factors for which males had higher scores than females. The next highest were for Factors X, IX, and I, on which females had higher scores. these, the correlations are considerably lower, so it appears that these 5 factors may be accounting for the greatest portion of the discriminating power of this set of 11 factor variables for male and female college withdrawals. Factors V and VI, which produced significantly higher scores for male dropouts and female dropouts, respectively, were also important in the separation of males and females.

When factor scores were compared for male and female students whose grade-point averages reflected varying levels of academic achievement, several significant differences were identified. For both the male and female samples, students at varying achievement levels differed significantly in their responses to Factor VI, or problems described as "Poor Academic Skills or Grades." This result, of course, is not surprising, since we would expect students with low grade-point averages to be more concerned with these problems than would be students with higher grade-point averages.

Somewhat more interesting perhaps is the difference found between women at varying achievement levels on Factor II. Dissatisfaction with Academic Situations. Women with grade-point averages above 3.5 were clearly less concerned than other women with such problems. This difference did not occur for male dropouts, however.

Discussion

The current research reveals quite clearly that male and female students report having experienced different types of problems prior

to the decision to withdraw from college. When those problems on which significant differences occurred are viewed in terms of common characteristics, some patterns do seem to emerge. While women expressed dissatisfaction with housing and limits placed on their activities, for example, men were expressing doubts about the value of a college education in general. Men reported problems of physical health, while women reported specific problems of a psychological nature, such as feelings of loneliness, lack of confidence, or problems in interpersonal relationships. In general, women seemed more concerned with personal adequacy and performance, or with specific personal needs for their environment, while men more often reflected philosophical concerns related to education and career choice, or problems of a financial or physical nature, over which the individual would presumably have little control.

One might begin to argue here that men are, indeed, as previous investigators have suggested, more concerned with achieving a degree and with performing well in college than are women. The fact that women significantly more often report concerns directly related to grades and to academic performance, however, presents a convincing argument to the contrary. Particularly interesting in light of this difference is the fact that a considerably larger proportion of female dropouts had high grade-point averages than did male dropouts. While only 2% of the males had grade-point averages of 3.5 (B+) or above, 4% of the females had such averages; and dropouts with grade-point averages of 3.00 (B) or better accounted for only 14% of the male sample, but 21% of the female sample. The trend was consistent at the lower end of the scale: dropouts with grade-point averages below 2.00 (C) accounted for 25% of the male sample, but only 18%



of the female sample.

These differences related to college achievement of dropouts seem to indicate that women perform better than men in college, but that they evaluate this performance less positively than do men. An interpretation consistent with the theory of achievement motivation discussed here, however, would suggest that women under-evaluate their performance because of the negative consequences which academic success is expected to bring; that is, because they see academic success as incompatible with the traditional feminine role.

The other problems which women report also find some support in previous research related to the achievement motive in women, too. The fact that women express a higher level of concern for problems related to social or interpersonal relationships and aestetic interests or activities (Factors I and X) is consistent with the findings of Field (1950) and Milton (1959), for example. Their work indicated that the achievement scores of women may be raised when achievementarousing conditions include instructions related to social-related conditions or to other more traditionally feminine pursuits, rather than to aggressive achievement striving in the classic sense of intelligerce and leadership. What is suggested then is that women may be dropping out of college because success in the college academic situation may interfere with attainment of the feminine role. Men who drop out, on the other hand, are more concerned with tradtitional achievement goals. It appears, therefore, that men often drop out fearing failure in college, while women drop out fearful of success.

An understanding of the motivation underlying a student's decision to withdraw from college appears to represent a crucial issue in counseling that individual. Although such a student may not



possess a full awareness of this motivation, we can expect it to be reflected in the problems which he describes having experienced. With such information, and an understanding of how such problems are related to achievement-oriented behavior, the counselor should be in a better postion to assess the student's possibilities and to guide him in making decisions concerning withdrawal.

While the data reported here provide some evidence of the viability of current conceptions of achievement motivation theory in explaining drop-out behaviors, further research involving the direct assessment of achievement tendency may be necessary for clarification of the relationships between achievement motivation and college withdrawals which have been suggested here. Meanwhile, the current work appears to provide a step tow d new approaches to the study of college attrition. Rather than simply reporting numbers and percentages of withdrawals or describing general characteristics of such samples, as much of the research literature on attrition has done, an attempt has been made to test behavioral hypotheses using such data. While this approach has the disadvantage of requiring a number of assumptions and inferences concerning the applicability of theory to the data, the ability to generalize and to make predictions which may come from such work should provide some important compensating benefits.



Table 1

VARIMAX LOADINGS OF 65 PROBLEM ITEMS ON 11 FACTORS

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Table 2

ITEM VECTOR COSINES FOR COMPARISON OF II-FACTOR SOLUTION FOR MALES RE-ROTATED TOWARD THE II-FACTOR SOLUTION FOR FEMALES

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Item Vector Cosine	.9732	.9433	.9557	.9277	.8957	. 3887	.3521	.9704	.9412	.8767	.8681	.9482	6156	9616.	.9525	.8584	88898	.9225	.9753	.9493	.9528 .8496 .3108
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Item Vector Cosine	.9256	.8792	. 9435	.9392	.8716	.7784	.9588	.9473	.9201		.9557	. 9311	. 8637	. 8532	. 9933	.9707	6096	.9130	.9724	. 8949	. 9211
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Table 3

LEAM FACTOR SCORES, UNIVARIATE F-TLSTS FOR MALE & FEMALE GROUPS AND CORRELATIONS OF FACTORS WITH THE DISCRIMINANT FUNCTION

	CORRELA	ATIONS OF FACT	CORRELATIONS OF FACTORS WITH THE DISCRIMINANT FUNCTION	DISCRIMINE.		
		rlear Score for Fenales	Mean Score for Males	F-Ratio	Probability	Correlation with Discr. Function
=	III. Financial or Employment Problems	18.27	50.94	23.69	₹.0001	.4793
	VII. Health-Related Concerns	48.27	50.92	22.83	1000.>	.4706
×	X. Lack of Time for Extra-curricular Activities	51.50	49.21	18.75	₹.0001	4271
×	IX. Dissatisfaction w/ Residence	51.50	49.17	16.40	<.001	3998
-	l. Personal-Psychological Concerns	51.14	49.35	10.75	·.01	3244
, ×	V. Career-Related Concerns	49.29	50.38	3.97	<.05	9261.
	VI. Poor Academic Skills or Grades	50.73	49.60	3.96	50.3	7/61
×.	XI. Religious-Philosophical Concerns	44.64	50.23	2.26	.13	. 1493
=	<pre>11. Dissatisfaction w/ Academic Situation</pre>	49.60	50.22	1.24	.26	.1105
>	<pre>IV. Home-Parental Conflicts</pre>	49.81	50.15	.33	55.	.0611
VIII.	VIII. Marital Problems	49.87	50.05	•	.74	.0328

Table 4

		MEANS AND AN FOR FEMALE (MEANS AND ANALYSES OF VARIANCE OF FACTOR SCORES FOR FEMALE DROPOUTS AT FIVE ACHIEVEMENT LEVELS	NANCE OF FACT VE ACHIEVENE	OR SCORES	. •	
	Mean for G.P.A. 3elow 2.00 (N=91)	Mean for G.P.A. 2.00-2.49 (N=115)	Mean for G.P.A. 2.50-2.99 (N=105)	Mean for G.P.A. 3.00-3.49 (N=81)	//ean for G.P.A. 3.50-4.00 (/=21)	F-Ratio	Probability
Factor 1	50.7253	52.2609	49.2571	52.5556	51.6667	1.737	. 1397
Factor II	50.0440	49.9565	50.2381	50.7160	43.4762	2.398	.0488
Factor III	49.3626	47.7130	50.1333	47.6420	43.4286	1.433	.2209
Factor 1V	51.3571	50.3261	49.3143	47.9506	47.3310	2.193	0890
. Factor V	45.5484	50.2370	48.9429	49.3210	49.3333	.418	. 7930
Factor VI	57.1538	52.7652	47.9143	45.5062	46.4286	17.866	0000.
Factor VII	49.1648	49.2783	46.9619	47.3333	46.5714	1.167	.3242
Factor VIII	49.2418	49.0603	50.1333	51.1852	50.0000	. 838	.4731
Factor IX	51.5275	50.1652	52.2095	54.2099	52.9048	2.001	.0924
Factor X	53.1648	50.5087	50.6667	51.7284	51.1429	1.115	.3467
Factor XI	47.7582	50.4174	0009.64	50.3951	43.4286	1.244	. 2907

Table 5

MEANS AND AWALYSES OF VARIANCE OF FACTOR SCORES

		FOR MALE DRO	FOR MALE DROPOUTS AT FIVE ACHIEVEMENT LEVELS	ACHIEVEMENT	LEVELS		
	Mean for G.P.A. Below 2.00 (:1=91)	Mean for G.F.A. 2.00-2.49 (,4=273)	Mean for G.P.A. 2.50-2.99 (J=178)	Mean for G.P.A. 3.00-3.49 (N=101)	Mean for G.P.A. 3.50-4.00 (i=20)	F-Ratio	Probability
Factor	49.0897	49.9304	49.0169	48.7624	49.4200	.467	.7626
Factor II	49.9686	50.3370	50.5955	50.6238	49.1000	.212	.9239
Factor 111	52.1076	50.68dt	50.4663	49.7426	51.7000	1.257	.2845
Factor IV	51.4619	49.6923	48.9213	49.0653	49.7500	2.269	.0593
Factor V	50.2242	50.5048	50.4775	50.1782	53.3500	.624	.1649.
Factor VI	52.6996	49.6447	49.0056	44.3267	46.4500	15.792	1000.
Factor VII	50.5874	50.4545	50.5674	51.7030	53.0000	.605	9799.
Factor VIII	43.7758	50.5059	49.7921	51.1980	48.7000	1.849	.1163
Factor IX	49.5381	49.0586	49.7472	48.6436	48.7500	.281	.8899
Factor X	49.4978	49.1002	49.2135	48.6238	51.6500	.507	. 7338
Factor XI	48.7578	51.4615	50.1854	50.3861	50.2000	2.264	.0598

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