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ABSTRACT

Women do not contribute to the arts, sciences, and humanities commensurate with their talents and potential nor in proportion to the opportunities available to them. This study investigated variables or combinations of variables which best predict lower achievement and career motivation in women: self-esteem, fear of success, vicarious achievement ethic, home-career conflict, work-discrimination beliefs, sex-role orientation, risk-taking behavior, social structure, and perception of parents. A cross-cultural study was conducted of subjects drawn from various ethnic and socioeconomic subcultures in the United States and Iran. The subjects represent three age groups of women and men: high school, college, and women returning to college after an absence of at least five years. Data analysis of the nine predictor variables indicates that the impact of societal changes (legal, attitudinal, and social) has not yet removed the factors that are inhibiting women's achievement and career motivation. (Author/ND)

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Why Women Contribute Less to the Arts, Sciences and Humanities

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Abstract

Not only do women not contribute as much as men to the humanities, arts and sciences, they do not contribute commensurate with their talents and potential or in proportion to the opportunities available. The question investigated is which factors or combination of factors best predicts lower achievement and career motivation in women? A crosscultural study, subjects represent three age groups of women/girls and men/boys: high school; college; and women returning to higher education after an absence of at least five years. Subjects are drawn from various ethnic and socioeconomic subcultures in the U.S. and Iran. Early data analysis of the nine predictor variables indicate that the impact of societal changes, legal, attitudinal and social has not yet removed factors inhibiting women's achievement and career motivation.

Purpose of the Research and Statement of the Problem

The achieving orientations of women is currently an issue of focused interest and critical import throughout the world. Women have not caught up with the opportunities available to them to contribute to society through their careers. Not only do women not contribute as much as men to the humanities, arts, and sciences, they do not contribute commensurate with their talents and potential or in proportion to the opportunities available. It is assumed that women's lesser contribution through their careers is related to their motivations (i.e., interests, values, and needs) and that as these change some women will be more in a mood to take advantage of career opportunities.

Some of the changes in countries internationally that have made it possible for more women to pursue careers today than was possible 50 years ago include technological advances related to homemaking; improved health and a longer life span; improved contraception (i.e., the pill) and ease of obtaining abortions; and legislative changes related to greater equality of opportunity in education, employment, and earning potential for women. In Iran, for example, the veil was removed in 1935; the University of Tehran was coeducational by 1940, followed quickly by the franchise and expansion of legal rights regarding property, employment and family for women. Equal rights legislation is increasing in the U.S. with its intent of equalizing employment and personal rights for both sexes and changing the rights of men and women to the "human" rights of persons. This is a time when more than 38 percent of the work force in America is women and more than half of this group of women are married.

The introduction of the pill has made it possible for persons, both men and women, to choose whether or not to have children, and if so, how many. This greater freedom to choose has not only led to greater freedom for women, it has led to changing social attitudes about marriage which include more sharing and mutual planning by both spouses. Child care remains a concern for women in all countries (Darling, 1973) and equal responsibility in this domain is exceptional. In summary, changes in all countries make it possible for more women to choose a career that requires their full potential, however, social attitudes, and adequate provision for child care present current obstacles to their doing so.

It is crucial that the impact of these societal changes be estimated, especially as they have affected the attitudes and motivational patterns of different groups of girls and women in a variety of subcultures and age groups. For example, in 1968 Horner reported that more than 65 per cent of the women she studied exhibited an attitude she labelled "fear of success," related to the fear that successful career women would be rejected by men, potential husbands, etc.

Research data reported six years later by Lipman-Blumen (personal correspondence) indicates that this fear has been significantly reduced in some groups of women to as low as less than 10 per cent. Data from Australia (Feather, 1974) indicate lower "fear of success" in Australian women than Horner found, as well. American data on the belief that women's primary role is in the home indicate that college women have changed their views from 64 per cent in favor in 1968 to 24 per cent in 1973 (Astin, 1973). Another attitude found to affect achievement motivation in women is the attitude "men don't like women supervisors/managers." However, research by Basil (1972) indicate that men who have had female supervisors, on the average, have positive attitudes toward them. These are examples of but three of a myriad of related social attitudes and beliefs that may be inhibiting career motivation in women.

Women have not caught up with the opportunities available to them to contribute to society through their careers. Not only do women not contribute as much as men to the humanities, arts, and sciences, they do not contribute commensurate with their talents and potential. It is assumed that women's lesser contribution through their careers is related to their motivation.

Achievement and career motivation in females differs from that of males as a result of as yet poorly defined factors. Some of these factors have been identified in the research literature: (a) Reduction in academic self-confidence for women in college (Tomlinson - Keasey, 1974); (b) Sex role orientation found to affect achievement motivation (Alper, 1974; Entwisle, 1972); (c) Early socialization patterns in the home found to effect female motivation (Crandal and Battle, 1970; Rubovits, 1975); (d) Fear of success in college and high school women, found in varying degrees depending on the perceived social sanction given to women's careers (Horner et al., 1973; Katz, 1973; Monahan et al., 1974); (e) Vicarious achievement motivation found to contribute to women's contentment with traditional career roles such as secretary, elementary school teacher and nurse (Lipman-Blumen, 1972); (f) Home-career conflict found in both college women and working women to inhibit career motivation (Morgan, 1962; Farmer and Bohn, 1970); (g) Risk taking behavior found to be less predictable in girls than in boys (Maccoby and Jacklin, 1974); (h) Work discrimination beliefs found to inhibit career motivation (Birk et al., 1973); (i) The availability of resources in the environment (Edye, 1970). Figure 1 presents these factors.

Previous studies have typically looked at the effect of one of these variables and have not controlled for the possible effect of the others on

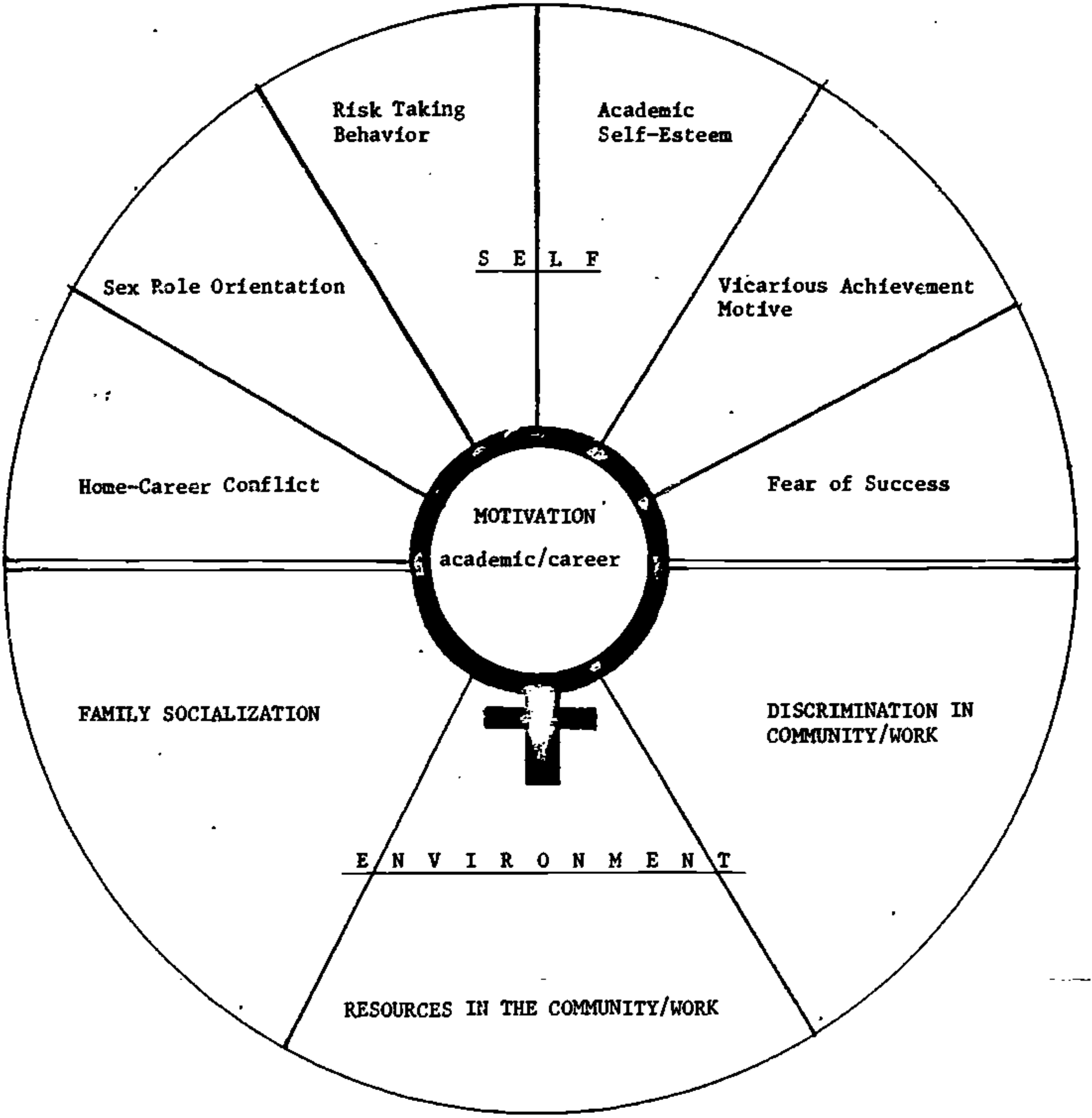
Risk Taking Behavior
Academic Self-Esteem
SELF
Sex Role Orientation
Vicarious Achievement Motive
Home-Career Conflict
MOTIVATION
academic/career
Fear of Success
FAMILY SOCIALIZATION
DISCRIMINATION IN COMMUNITY/WORK
ENVIRONMENT
RESOURCES IN THE COMMUNITY/WORK

Figure 1: A conceptual model for understanding inhibited academic/career motivation in women.

motivation. Some of the research has examined the effect of these variables on academic motivation; other research, the effect on career motivation.

It is crucial that the impact of these factors be estimated, especially as they affect the attitudes and motivational patterns of different groups of girls and women in a variety of subcultures and age groups. At least three benefits of this line of research would be:

1. The research should, at the very least, shed more light on the relationship of the nine identified factors and achievement and career motivation cross-culturally in women. A more differentiated picture of motivation in women should emerge with some understanding of the contribution of each factor to comparatively lower motivation in women compared with men.
2. The development of a measure capable of identifying the factors contributing to inhibited motivation in individual girls and women would permit early diagnosis of these factors. Counselors and teachers would then be able to prescribe change strategies to increase motivation more precisely than is now possible.
3. Obtaining data on a variety of interventions and/or treatments effective in increasing achievement and career motivation in girls and women in various subcultures would provide the basis for informed interventions in school, home, and society.

Research Questions

1. Which factor or combination of factors best predicts lower achievement motivation in females: fear of success; home-career conflict; vicarious achievement motivation; sex role orientation; self-confidence; risk preference; work discrimination; social context; or early socialization patterns?
2. Which factor or combination of factors best predicts lower career motivation in females: fear of success; home-career conflict; vicarious achievement motivation; sex role orientation; self-confidence; risk preference; work discrimination; social context; or early socialization patterns?
3. Which subgroup of females (i.e., age, race, ethnic group, SES, etc.) obtains significantly higher scores on each of the identified factors?
4. Are the differences in patterns of strength obtained among predictor variables between subject groups stable, when the best predictors for each group are measured in new samples of the same three populations, comparable in academic ability, SES, race and age?
5. Are the differences in the patterns of strength obtained among predictor variables between subject groups stable, when the best predictors for each group are used to predict motivation in each of the other groups?
6. To what degree do the different subgroups of females differ with respect to identified discriminant functions of the predictor variables?

Method

Subjects

Three different age groups of females and males are currently being studied, representative of high school juniors, college undergraduates, and women re-entering education after an absence of at least five years from formal schooling (to work, stay home, raise a family, etc.). Rural, urban; upper, middle and lower SES; and ethnic groups within Iran and the U.S. will also be selected for study in Phase II, III and IV of the research. Subjects total 900 for Phase I, reported here.

Support

Support for this research project has three sources currently: a) a University of Illinois Research Board grant for the period August, 1975 - August, 1976; b) a Midwestern University Consortium for International Collaboration (MUCIA) grant for the period January, 1976 - July, 1977; and a grant from the Iranian government to the University of Ferdowsi, Meshad for the period January 1976 - July, 1977. During the Fall, 1975, work began on collecting data for Phase I in the U.S. and work is currently underway translating the eleven measures into Farsi for Iranian subjects. In January, 1976, project staff visited collaborating universities in Iran (Tehran and Meshad) to initiate plans for reviewing translated measures and for collecting data.

Co-principle investigator of this research in the U.S. is Martin L. Maehr of the University of Illinois. Collaborating researchers in the U.S. include Lenore Harmon, University of Wisconsin, and Lorraine

Hansen, University of Minnesota. In Iran collaborators are Drs. Farideh Salili and Mahtash Esfandiari at the Universities of Ferdowsi and Tehran, respectively.

Dependent Variables

1. Achievement Motivation is measured using the verbal leads developed by Horner (1968) and adapted by Salili (1975) for Iranian subjects. Five leads or cues are presented to the person, each followed by a separate page for writing the story for that particular cue. Time to administer, about 30 minutes. A manual for scoring this measure was developed by Horner *et al.*, (1973).
2. Career Motivation is measured for American women using the Strong-Campbell Interest Inventory (SCII; Campbell, 1974). This inventory is machine scorable only. Following machine scoring career motivation will be measured by identifying subject scores on nontraditional career scales using a procedure developed by Redd (1976). A measure of career motivation for Iranian subjects may be obtained from the expressed level of career aspiration of subjects, following the procedure of Roe (1956) and Holland (1973). Salili is currently studying other possibilities.

Predictor Variables

We know that achievement and career motivation in girls and women differs from that of boys as a result of as yet several poorly defined factors. Background information from subjects on education, SES, demographic, and ethnic background provide some leads. Other leads provided by the research literature to date include measures of the following variables which serve as the predictor variables:

1. Self-esteem (Coopersmith, 1967) found to be lower in college age women (Tomlinson-Keasey, 1974) than in college age men.
2. Fear-of-success (Horner, et al., 1973) found to vary with different groups of women and different cues (Katz, 1973; Monahan, et al., 1974).
3. Vicarious achievement ethic (Lipman-Blumen, 1972) found to contribute to women's contentment with traditional career roles such as secretary, elementary school teacher, and nurse.
4. Home-career conflict (Alper, 1974) found in both college women and working women (Morgan, 1962; Farmer and Bohn, 1970).
5. Work-discrimination beliefs (Birk, et al., 1973) found to inhibit career motivation in women.
6. Sex-role orientation (Bem, 1974) found to affect career motivation (Lipman-Blumen, 1972; Alper, 1974; Sarmad and Toubar, 1973) in men and women.
7. Risk taking behavior (Horner, 1968) found by Horner, Atkinson (1974) and Maehr (1974) to be related to achievement motivation in both sexes.
8. Social structure (Maehr, 1974) a measure of context variables related to availability of child care alternatives, homemaking responsibilities; and expectations of others (i.e., husbands, community).
9. Perception of parents (Rubovits, 1975; Winterbottom, '953; Rosen and d'Andrade, 1959) a measure of i) granting of independence; ii) quality of interaction relative to achievement; and iii) value placed on achievement by parents.

Design 1: Phase I, II, and III

A multiple regression analysis will be performed on predictor variables to identify how much of the variance is accounted for by each in predicting 1) achievement motivation and 2) career motivation.

Analysis of variance will be performed for each predictor variable separately, comparing scores between groups. MANOVA will also be performed on the predictor variables, as dependent variables, to identify any significant differences between groups, while at the same time controlling for dependence among variables. A discriminant function analysis will identify the best predictor, based on two linear combinations of the predictors. Cross-cultural comparisons of the data will be made to identify similarities and differences and generate further hypotheses for testing. Phase II consists of a replication of Phase I to establish the stability of the predictors with new samples of the same sub-populations.

Following analysis of data from Phase I and II, the identified "best predictors" of achievement and career motivation for each group will be administered to similar demographic groups to test the stability of the predictors. Multiple regression analysis will be performed again to compare both within group and between group differences.

Design 2: Phase IV and V

In this stage of the research study results from the previous stages will be critical in forming the design. This is an experimental design rather than a correlational one and will compare the effect of at least three treatment conditions with a no-treatment control for each sub-population of females studied in Design I, using new samples. The nature of the treatments will be determined by the strength of the predictor variables. For example, if fear of success, work discrimination, and home-career conflict were the three strongest predictor variables for college coeds, three treatments would be designed to reduce the effect of these factors and tested for their effectiveness in increasing achievement and career motivation. Other factors might be more powerful for older women (i.e., self-esteem), and still others for high school girls (i.e., vicarious achievement, or sex role orientation).

Role set instructions (Sarbin, 1974) have been found to reduce factors inhibiting career motivation and to increase significantly career motivation in women(Farmer and Bohn, 1970). Role set instructions used as a preliminary treatment to demonstrate change, if effective, would lend support for developing treatment interventions aimed at change on the same factors. Such treatments would then be designed and research conducted on effectiveness. A final stage would propose intervention strategies (group procedures and individual) to teachers, counselors, parents, and community groups.

Results

Data from Phase I of the study on 900 subjects is currently being collected on all eleven measures. Preliminary data from 300 high school subjects suggests that previous findings indicating that the mother more strongly influences achievement motivation in girls and women than the father (Moss & Kagan, 1958; Crandall & Battle, 1970) still hold true. Table 1 presents some data. Multiple regression analysis on data from three age cohorts (N=900) will be available to report at the AERAconvention. I realize I am proposing to report findings that are currently indeterminate. However, I am confident that the data will yield trends that are of high interest to AERA participants.

insert Table 1 about here

Conclusion

This research is intended to shed light on inhibited achievement and career motivation in girls and women. A more differentiated picture of the factors contributing to inhibited motivation in different subgroups and cultures should lead to a more accurate diagnosis. Interventionist strategies directed at specific factors should be an improvement over the present shotgun approach to helping women achieve their potential. Documentation of social attitude change among different groups of women is critical to an informed effort by psychologists, educators, and parents to increase the achievement and career motivation of women to the level where they can fully take hold of the opportunities society offers.

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Table 1

Relation of Early Socialization Factors to Achievement Motivation, Comparing the Influence of Father and Mother for Girls

Factor	Mother	Father
Underprotectiveness	.46	-.04
Encouraged Independence	.35	.11
Warm Relationship	.52	.17
Encouraged Achievement	.19	-.03
Interest shown	.30	-.07
Identification with parent as achievement model	.15	-.31
Discipline harsh	.20	.06
Encouraged persistance at tasks	.38	.17