ABSTRACT
        Although most women are now working outside the home,
gender equity in the labor force has not been achieved. Women are
still concentrated in low-paying, traditionally female-dominated
occupations (such as clerical and retail sales), while most jobs in
the higher paying, more prestigious professions are held by men.
Despite attempts to reduce discrimination in the workforce, the
occupational structure seems unlikely to undergo any substantial
change. The continued segregation and underutilization of women in
the workforce can have serious consequences in terms of women's
psychological and physical well-being; it also has direct economic
and income-related implications for women. A large wage gap between
men and women still exists, and female-headed households are among
the poorest in the country. Cultural expectations and gender-role
stereotypes, self-esteem and self-confidence, family and life
planning, parental influence and fear of success, and problems and
solutions are considered. It is the responsibility of teachers,
parents, counselors, and school administrators to address gender
stereotypes and occupational inequities that negatively influence
female students. The following are possible strategies for providing
an equitable, gender-fair education to all females: (1) mentor
programs; (2) non-traditional role models; (3) curriculum revision;
(4) curriculum innovation; (5) teacher/counselor training; (6)
parental-male peer awareness; and (7) mathematics and science
emphasis. (RLC)

GENDER EQUITY: EDUCATIONAL PROBLEMS AND POSSIBILITIES

FOR FEMALE STUDENTS

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1

GENDER EQUITY: EDUCATIONAL PROBLEMS AND POSSIBILITIES

WOMEN AND THE WORKFORCE:

The past two decades have seen a substantial increase in the participation of women in the U.S. workforce. From 1972 to 1986, the percentage of women working outside the home rose from 39% to 45% (Fullerton, 1987). By the year 2000 it is expected that four in every five women age 25-54 will be employed (Hoyt, 1988) and that they will account for 47% of the total labor force (Kutscher, 1987). There is little doubt that this increase is closely associated with the changes in societal attitudes toward working women. Economic necessity has also been an important influence: factors such as rising divorce rates, inflation, and the spiraling costs of college education leave fewer and fewer women with the choice of whether to stay at home or seek employment.

Although the majority of women are now working, gender equity in the labor force has not been achieved. Women are still concentrated in low-paying, traditionally female-dominated occupations (such as clerical and retail sales) while the majority of jobs in the higher paying, more prestigious professions are held by men (Ehrhart & Sandler, 1987; Sadker et al, 1989). Despite attempts to reduce discrimination in the workforce, the occupational structure seems unlikely to undergo any substantial change. According to Eccles (1987) and Gerstein et al. (1988), most of the occupational categories presently dominated by males will remain that way.

2

The continued segregation and under-utilization of women in the workforce can have serious consequences. Evidence shows that career dissatisfaction can lead to a number of mental and physical problems (Herr, 1989). In a study of military wives, for example, Rosen et al. (1990) found that satisfaction with overall career development prospects has a direct impact on general well-being. In a similar study, Ickovics (1989) found that underemployment has a negative effect on psychological well-being. From the literature which has emerged from several different fields, including economics, industrial psychology and counseling, Herr (1989) concludes that personal adjustment and work adjustment are inter-dependent, and that "a variety of life difficulties and mental problems ensue when work life is unsatisfactory" (p.6).

Underemployment also has direct economic implications for women. A large wage gap between men and women still exists (Eccles, 1987) and households headed by females are among the poorest in the country (Lottinville and Scherman, 1988; Sadker et al, 1989). In 1985, for example, 75% of those households maintained by women under 25 were living in poverty (Wetzel, 1987). In the coming decade, women may face further difficulty in the world of work, since the occupational areas expected to experience least job growth are those in which women are already overrepresented (Hoyt, 1988; Gerstein et al,1988).

CULTURAL EXPECTATIONS AND GENDER-ROLE STEREOTYPES:

The majority of women and girls still plan to enter occupations which are traditionally dominated by females (Gerstein

et al., 1988; Eccles, 1987). An important reason is the internalization of gender-role stereotypes and cultural expectations of men and women. Traditionally, society emphasizes physical attractiveness, nurturance, sensitivity and dependence in women, whereas men are characterized as being dominant, achievement-oriented, rational and assertive (Bem, 1974). Inculcation of these values, traits, and behaviors can seriously affect the individual's "perceived field of options" such that "activities classified as part of the opposite sex's role may be rejected without any evaluation or consideration" (Eccles, 1987. p. 141). According to Bem (1979), strongly sex-typed individuals are more likely to adjust their behaviors to conform to cultural norms than those whose sex-role orientation is more androgynous. This link has been demonstrated in several studies with regard to career choice (e.g. Wolfe & Betz, 1981; Clarey & Sanford, 1982) and selection of college major (Gianakos & Subich, 1988). A study by Bridges (1988) also suggests that women are more prone than men to base their career choices on stereotypical considerations.

The stereotyping of mathematics as a masculine activity may be a crucial factor in limiting women's access to math-oriented occupations (Sherman, 1982; Singer and Stake, 1986; Hyde et al., 1990) - most of which are in the upper levels of the occupational hierarchy. According to Sherman 1983b), "It is a network of sex-role influences which makes mathematics, and the careers mathematics are needed in, appear incongruent with the female role..." (p.342). Sadker et al. (1989) report that high school

4

girls do not perceive mathematics as being important or useful to career goals. From their meta-analysis of gender difference in mathematics attitude and affect, Hyde et al. (1990) found (as did Sherman, 1983a) that men tend to stereotype mathematics more than women. They postulated that female students may be pressured by their male peers not to achieve in mathematics and perhaps even discouraged from taking math courses by male teachers. As Sherman (1982) points out, if women are to move into the higher-paying, math-related occupations, conflict between perceived female roles and achievement in traditionally male areas must be overcome. Not only must women perceive math and science careers as appropriate and useful, but they must also have sufficient confidence and self-esteem to pursue courses and occupations in these areas.

SELF-ESTEEM AND SELF-CONFIDENCE:

The career development theories of Holland (1973) and Super (1957) presuppose that individuals select or reject occupations according to whether or not they are consistent with self-image. Society has traditionally viewed women as being less competent or capable than men. As a consequence, gender-role socialization can lead women to have less confidence in their abilities and lower esteem than males. For example, according to Sadker et al. (1989), women are less likely than men to believe they can do college work, even though they achieve better grades. A study commissioned by the AAUW (1991) revealed that loss of self-esteem in adolescents is far more severe for girls than boys. Girls were found to "emerge from adolescence with a poor self-image, constrained views

of their future and place in society, and much less confidence about themselves and their abilities" (p.4).

Lack of confidence and poor self-image are particularly important factors with regard to women's participation in math/science-related occupations. In a longitudinal study of high school students, Sherman (1983a) found that males were more confident about their mathematics performance than females, yet their measured mathematics performance was actually lower than that of the females. From the results of their own and previous studies, Singer & Stake (1986) concluded that even though females and males may rate themselves similarly on math ability, in practice, females tend to be less certain of their performance in math situations. According to the AAUW (1991), adolescent girls are more likely to interpret their problems with mathematics as personal failures than boys - who tend to blame their problems on the subject matter itself. Furthermore, there seems to be a relationship between enjoyment of math and science subjects and adolescent self-esteem, particularly for girls. Adolescent women (and men to a lesser extent) who like math were found to be confident about their academic ability, their physical appearance, and their family relationships (AAUW, 1991).

FAMILY AND LIFE PLANNING:

Most of today's young women and girls anticipate combining work and family responsibilities for at least part of their adult lives (Sherman, 1983b; Murrell et al., 1991). This is also true of young men and boys, but as it is women who traditionally hold the

primary responsibility for child-rearing and household chores, their career planning and development is more likely to be strongly influenced by family role considerations. Osipow (1983) notes that "even highly career-oriented professional women have different kinds of expectations and pressures with respect to their marriage roles than do men" (p 270). As Eccles (1987) suggests, the relative emphasis women place on career and family considerations is likely to be influenced by their perceptions of appropriate gender roles. Hence, women who have very traditional views of female roles will be more likely to choose occupations which are low in status, hold less responsibility, and are widely available so that they can accommodate the career development needs of their husband/partner as well as household and child-rearing responsibilities. Eccles (1987) believes that it is family role considerations rather than factors such as lack of confidence and fear of success that tend to limit women's investment in the occupational world.

Many studies of working women focus on the strain or conflict that can arise in attempting to deal with the demands of work and family roles. Psychological distress such as depression or anxiety may result if women feel continually overburdened by their responsibilities. The extent to which working women are affected by role strain is likely to be influenced by a number of factors, such as the structure of their support network, level of self-esteem, personal coping style (McBride, 1990), and perception of family roles. From their study of college women, Murrell et al.

(1991) found that black women perceived less conflict in combining family and career roles than white women. They attributed this to the tendency for black women to have less traditional, stereotyped views of family and marriage structures. Of the 300 professional women that Gray (1983) surveyed, more than three-fourths reported frequent strains between their home and career roles. However, the majority were satisfied with the way in which they dealt with those strains. Gray found that several coping strategies were positively related to the women's level of satisfaction in dealing with role conflict. These included the sharing of household tasks with family members, reduction of standards within certain roles, careful scheduling and organization of activities, and having family members help resolve role conflicts.

Pietrmonaco et al. (1986) found that, for some working women, having multiple roles can in fact be psychologically beneficial. Among the 500 employed women who were surveyed, those who held the most social roles (e.g. employee, wife, mother, student, volunteer worker) typically had higher self-esteem and were more satisfied with their job than women who held only one or two roles. On the basis of their own and other studies, they concluded that multiple roles are related to self-esteem and well-being - though only among career-oriented women.

Research suggests that women who have not actively chosen their lifestyle are more likely to experience feelings of dissatisfaction and regret than other women. Rosen et al. (1990) assert that role satisfaction is a crucial factor for women's

8

9

mental and physical health. They postulate that working women and homemakers who do not want to be employed enjoy better health than homemakers who would rather be employed. In support of this, women who enter the workforce through necessity rather than choice have been found to have lower self-esteem, to feel more burdened by time constraints, and to experience interpersonal difficulties more often than women who choose to work (Bartholomew, 1988). Also of relevance is the study by Metha et al. (1989) of women's priorities and regrets. Woman rated as being most dissatisfied with their lives often said they regretted not taking more risks. For all the women, the most common regrets were missed educational opportunities and lack of assertiveness.

Ostensibly, women now have a wider range of lifestyles from which to choose. However, their options are often limited by their own perceptions of women's roles and the compatibility of career and family.

PARENTAL INFLUENCE AND FEAR OF SUCCESS:

According to Osipow (1983), understanding of the nature of parental influences on women's career choices is incomplete, yet there can be little doubt that parents do influence their daughters' career perceptions and attitudes and, hence, their career decisions. In a study of 67 married women and their mothers, Sholomskas and Axelrod (1986) found no relationship between the mother's work-role choice and the adult daughter's work-role choice. However, the mothers' attitudes toward roles and their relationships with their daughters did affect the daughters'

9

10

self-esteem and role satisfaction in adult life. It was what the
mothers said rather than what they did that influenced the
daughters' primary role choices. Evidence of a relationship
between parental support and nontraditional career choice has been
demonstrated by Houser and Garvey (1985). They found that female
students who enrolled in nontraditional (male dominated) vocational
training programs consistently received more support and
encouragement from family, friends, teachers, and counselors than
those who entered traditional programs.

According to Noble (1987), most gifted women, unlike gifted
men, have at some time found it necessary to "hide their abilities
in order to survive socially" (p.371). Horner (1972) has
attributed such behavior in women to a "fear of success". She
believes that women will tend to avoid success if they anticipate
negative consequences of succeeding such as social disapproval and
loss of femininity. A study by Farmer and Fyans (1983) of married
women who returned to college after an absence showed that fear of
success was most prevalent in highly motivated women. The
significant correlation they found between career motivation and
fear of success held true for both women classified as being
"feminine" and "androgynous" in their gender-role orientation.
Sherman (1982) found evidence of fear of success among 12th grade
girls who had enrolled in a fourth year of mathematics. Compared
to their peers who had taken fewer mathematics courses (though test
scores showed they were capable of four years of theoretical math),
these girls showed more favorable attitudes toward mathematics, but

10

were more ambivalent about their intelligence and more likely to feel ill at ease with boys because of their intellectual ability. They also tended to "play dumb" more often than girls who had enrolled in only three years of math.

Low self-esteem, poor response to failure, and fear of success are all likely to have a negative impact on female students' academic and career aspirations and the subsequent choices they make. As Eccles (1987) explains, girls reach critical decision points with an incomplete picture of the vocational world, a romanticized picture of traditional family roles, and incomplete information regarding the potential costs and benefits of various educational and vocational options. Without such information it is difficult to make a wise choice for oneself (p.165). According to Eccles (1987), the occupational stereotypes held by young women and men are typically ill-informed. Consequently, both young women and men may rule out occupations which would otherwise be appropriate choices.

PROBLEMS AND SOLUTIONS:

In light of this evidence, there can be little doubt that the occupational inequities between men and women must be addressed. An obvious way to do this is through our schools, for as Hoyt (1988) observes: "Education is the primary means available for reducing bias, helping persons move out of poverty and preparing persons for employment" (p.37). Schools must, however, be more than mere advocates for change, they must be part of the change itself. Gender bias still pervades the school system - through the

11

curricula, the instruction, and the role models that it provides for students (Sadker et al., 1989). We must therefore recognize and address the bias in our education system if sex equity in the work force is to be a realistic goal.

Unfortunately, the issue of gender equity is largely sidestepped by those who advocate education reform (Sadker et al., 1989). The latest National Education Strategy, "America 2000", states that by the year 2000 "the number of ... students, especially women and minorities, who complete degrees in mathematics, science, and engineering will increase significantly" (America 2000, 1991,p.63), yet the strategy fails to address the underlying causes of women's relatively low participation in these fields. Research recently commissioned by the American Association of University Women (AAUW, 1991) revealed that a substantial gap in self-esteem exists between adolescent girls and boys, and that girls tend to lack confidence in their math ability. If such gender issues are ignored, it is unlikely that women will ever be well-represented in the fields of mathematics and science.

It is thus important that educators help to reduce the impact of gender stereotyping by increasing students' awareness of societal attitudes and the ways in which stereotypes are perpetuated (e.g. media and advertising). Students must he encouraged to explore and question cultural expectations of men and women, to develop strategies to deal with situations that arise from gender stereotyping, and to broaden the range of behaviors and activities in which they engage. The latter is particularly

12

important, since, according to Yount (1986), "It is primarily through the channeling of activities that sex role stereotypes exert influence on the self-concept" (p.66).

It is important to encourage female students to examine their personal values and interests, to explore their perceptions of their abilities, and to learn to recognize and alter those behaviors which may be self-defeating. Measures also need to be implemented to halt the loss of self-esteem that typically occurs during the early years of adolescence. As Bernard (1988) has stated "When freed from the limits imposed on them by their low self-image, women will be more able to demonstrate the as yet uncultivated strengths they have to contribute to the human enterprise" (p.266).

In seeking to broaden the career options open to women, the role of family members and important others must also be considered. Young women themselves need to understand how family expectations and "traditions" can influence their own expectations, aspirations and decisions. Parents (and important others) must understand that the majority of today's women may want and/or need to work outside the home, and that nontraditional careers may represent valid options. Peer influences should also be explored. Young women must be encouraged to recognize peer-influence on their behavior and to discuss their perceptions of gender roles with male and female peers. By fostering open and meaningful communication with their peers, young women can build supportive peer networks through which they can explore and develop their personal roles,

13

14

values, goals, and ambitions.

Young women and girls must be encouraged to explore the full range of available career and lifestyle options and to carefully consider the potential costs, rewards and consequences of each option. Particular emphasis should be given to the pitfalls of adopting a lifestyle through necessity or "accident" rather than choice. Every young woman must recognize the importance of planning her own life rather than allowing others to define it for her. All options (homemaker, single career woman, married career woman, etc.) should be seen as valid, and choices made on the basis of personal preferences, values and goals. Young women must also be made aware that societal changes are making it increasingly necessary for women to be financially independent.

If more women are to move into the upper levels of the occupational hierarchy, it is important to dispel the myth that a choice must be made between career and family (Noble, 1987). It has been shown that by choosing relationships which are compatible with their values and goals, accepting outside support, (such as childcare) and developing flexible coping strategies (e.g. sharing household chores, enlisting family support), women can effectively eliminate or reduce the incidence of role conflict and lead healthful, satisfying lives.

POSSIBILITIES:

It is the responsibility of teachers, parents, counselors and school administrators to address gender stereotypes and occupational inequities which negatively influence female students.

14

Women will comprise the majority of the workforce population by the year 2000. It is imperative that an equitable, gender fair education be offered to girls now. The possibilities include:

Mentor Programs - pairing girls with professional women whom they can shadow at their worksites and visit with personally to observe career and life planning options.

Non Traditional Role Models - providing classes with female and male guest speakers who have chosen non traditional careers and lifestyles (i.e., female pilot, male nurse; female chemist, male househusband.)

Curriculum Revision - changing current textbooks to reflect gender fair language; adding course information to reflect women's accomplishments (i.e., history, sports, politics, literature).

Curriculum Innovation - offering courses which help female students to enhance their self-esteem and self-awareness, to examine and confront gender limitations, develop leadership roles and explore career and lifeplanning options and consequences.

Teacher/Counselor Training - offering workshops which prepare teachers and counselors to communicate with and instruct students using gender-fair language and behaviors.

Parental/Male Peer Awareness - conducting meetings and providing activities which heighten parental and male peer awareness of the problems created by cultural stereotypes and gender inequity practices.

Math and Science Emphasis - providing math and science teachers with instructional techniques which enhance female student

learning; urging counselors to help female students explore math/science careers; validating girls for their intelligence and talents; encouraging female students to enroll in math/science courses.

Administrators, teachers, counselors, and parents must become aware of how female students are being shortchanged. The possibilities which combat educational inequities can then be explored and remedial programs implemented.

THE END

16

17