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The Relationship between Demographic Factors and Gender Role Attitudes in Women Referring to Mashhad Health Care Centers in 2014

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ABSTRACT

Background & aim: Gender roles are affected by biosocial and cultural factors. These roles have significant impacts on one's professional, social, and family life. Therefore, given the recent changes in gender roles in Iran, we aimed to determine the relationship between demographic factors and gender role attitudes among women.

Methods: This cross-sectional study was conducted on 712 females, selected via stratified sampling. Data were collected using a demographic checklist and a gender role questionnaire including 2 sections: gender role stereotypes and gender egalitarianism. The validity of this questionnaire was confirmed by content validity and its reliability was verified by internal consistency (α=0.77). For data analysis, ANOVA and correlation coefficient tests were performed, using SPSS version16.

Results: The mean scores of gender role stereotypes and egalitarianism were 29.55±4.33 and 112.55±14.64, respectively. Stereotypic and egalitarian attitudes were significantly correlated with age, family size, duration of marriage, women's age at first childbirth, educational level, intentions to pursue education in future, and occupational status.

Conclusion: As to the finding, gender role attitudes were influenced by social, economic, and demographic factors in Iran. By paying attention to these factors, we can implement proper interventions in order to promote personal and social health among women.

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Introduction

Gender is an essential characteristic of every individual (1). It is a set of behaviors and characteristics, differentiating men from women (2). In fact, people accept different roles in society, based on their gender (3). According to Bem gender schema theory, involvement in different roles varies among men and women (4). According to World Health Organization (WHO), gender roles are defined as social and cultural traits, assigned to males and females in different societies (1).

Two aspects of gender role are gender role stereotypes and egalitarianism (gender equality). Gender stereotypes include biased beliefs and attitudes towards femininity and masculinity (5). These clichés influence the unequal distribution of power in families and lead to stereotypical norms (6). Based on these gender stereotypes, women are responsible for household chores and should not be involved in professional activities. On the other hand, men are considered to be breadwinners and family leaders.

Gender egalitarianism refers to the equal distribution of power and opportunities among men and women in professional, social, academic, and family life. According to this view, women and

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men have equal capacities for earning money, family progress, and attaining power (7, 8).

Social environment and circumstances form the prevalent beliefs about men and women (2) and play an important part in the development of gender role attitudes (9). As some studies have indicated, biological, social, and media exposure, as well as parental attitudes, can be influential factors for forming gender roles (10).

Most demographic characteristics are associated with gender roles (11). Overall, 3 independent variables may influence gender role attitudes, which are as follows: 1) demographic variables such as age, sex, race, education, and marital status; 2) parental variables including parents' educational level and mother's occupational status; and 3) variables related to urban life such as political affiliation and religious beliefs (9, 11).

As previous research has indicated, some families may raise their children with more flexible attitudes (4). Some other studies have shown that factors such as occupational status and income level influence females' attitudes towards gender roles (11). Besides, women's attitudes towards female roles in professional settings are strongly influenced by their children's opinions about female participation in work environment. This result indicates that gender role attitude is transmitted across generations. In fact, European studies have revealed that people living in larger families have more traditional attitudes toward gender roles (12).

Developments over the last decades have resulted in women's active participation in social, political, and economic domains (13, 14). Today, females can more freely seek education and choose their family roles and professional life (9, 11). In fact, equal involvement of men and women in each field is important for sustained development and welfare of the society (8).

Influence of gender-related beliefs on an individual's life leads to significant changes in his/her professional, social, academic, and family life; in a macro level, these changes include social changes (8, 9). Furthermore, different attitudes towards gender roles in families lead to different behavioral patterns, which influence the decision-making process in families (15).

One's attitude towards gender roles plays an important role in his/her interactions with others and consequently, influences his/her mental, social, and family health (10). Some studies have revealed that gender and gender roles are associated with life satisfaction and welfare and consequently, one's mental health (14).

Considering the importance of gender role attitudes in females' gender identity (8) and recent changes in gender roles in our society, it is necessary to study these attitudes in order to promote women's mental health. Therefore, this study aimed to determine the relationship between demographic characteristics and gender role attitudes.

Materials and Methods

This cross-sectional study was conducted on 712 females, referring to Mashhad healthcare centers in 2014. Participants were selected via multistage sampling. The sampling framework included all Mashhad healthcare centers. At first, healthcare centers No. 1, 2, 3, and 5, as well as Samen Center, were stratified, and the number of referred patients was estimated; these centers were listed and considered as a cluster. Then, in each center, participants were selected by accessible sampling, based on the inclusion criteria.

Data were collected using a demographic questionnaire including age, number of siblings, duration of marriage, women's age at first childbirth, time interval between marriage and first childbirth, age difference between spouses, educational level, intention to pursue education in future, occupational status, and income level.

The second questionnaire was related to gender role attitudes, developed by Kiani in 2008, consisting of two aspects of gender role stereotypes and egalitarianism (10). This questionnaire consisted of 45 statements, scored by a 5-point Likert scale, ranging from "strongly agree" to "strongly disagree". Statements number 8 and 10-45 were scored by the direct method (strongly disagree=score 1, strongly agree=score 5). On the other hand, statements number 25, 26, 38, 44, and 45 were scored, using the reverse method (strongly disagree= score 5, strongly agree=score 1). In gender equality section, scores ranged from 37 to 185, and higher scores indicated more egalitarian attitudes toward

gender roles. Regarding gender role stereotypes, the scores ranged between 8 and 40, and higher scores indicated more stereotypic attitudes toward gender roles. In order to compare the mean scores of gender role attitudes, $\frac{x-a}{b-a+1} \times 100$ formula was applied in order to calculate the percentage scores. In this formula, "x" denotes each aspect of gender role attitude, "a" is the minimum score, and "b" refers to the maximum score, obtained by each participant.

The inclusion criteria were as follows: 1) Iranian nationality; 2) residing in Mashhad; 3) being a Muslim; 4) monogamy; and 5) literacy (minimum level). After obtaining the informed consents, 712 female subjects from all healthcare centers were introduced to the study. Content validity was used to confirm the validity of the questionnaire. Ten faculty members from Mashhad School of Nursing and Midwifery, 2 epidemiologists from Mashhad School of Health, and 2 sociologists from Ferdowsi University of Mashhad reviewed the questionnaires, and their comments were considered.

Reliability of the questionnaire was confirmed by estimating internal consistency and Cronbach's alpha (α=0.77). Data were analyzed by SPSS version16. The normal distribution of data was assessed by Kolmogorov-Smirnov test. Linear relationships were determined by Spearman and Pearson's correlation tests. Moreover, in order to compare different variables, ANOVA and t-test were applied.

Results

This study was conducted on 712 female subjects within the age range of 15-66 years (mean=30.89±8.05 years). The majority of the subjects (76%) were housewives, and 44% of the participants had high school diploma.

Table 1. Comparison of the mean scores of egalitarian attitudes according to subjects' age, occupational status, age of marriage, age at first childbirth, and duration of marriage

Groups	Number	SD ± Mean	df	F	P-value
Age					
≥25	193	14.85±112.00			
35-26	321	14.72±113.47	3	2.47	0.04
45-36	134	13.49±113.18			
46≥	40	15.27±106.72			
Occupational status					
employee	47	14.09±115.82			
worker	24	14.12±117.49			
in-house employee	57	14.19±111.67	4	3.22	0.01
housewife	512	14.23±111.90			
student	32	119.20±14.35			
Age of marriage					
≥20	418	14.41±111.19			
25-21	178	13.67±115.43	2	7.30	0.00
≥26	39	117.05±16.88			
Age at first childbirth					
≥20	199	13.89±111.45			
25-21	216	13.92±111.46	3	1.29	0.03
30-26	85	16.29±113.87			
≥31	18	114.67±15.31			
Duration of marriage					
≥5	206	14.16±113.40			
10-6	152	15.26±113.97	3	1.29	0.03
15-11	108	14.20±111.87			
≥16	166	110.87±14.64			

Table 2. Comparison of the mean scores of gender stereotypes according to participants' age, occupational status, age of marriage, age at first childbirth, and duration of marriage

Groups	Number	SD ± Mean	F	df	P-value
Age					
≥25	193	3.85±29.31			
35-26	321	4.54±29.60	1.85	3	0.1
45-36	134	4.20±29.30			
46≥	40	4.70±31.03			
Occupational status					
employee	47	4.32±29.34			
worker	24	5.47±29.33			
in-house employee	57	3.76±29.88	2.43	4	0.04
housewife	512	4.33±29.66			
student	32	27.28±3.54			
Age of marriage					
≥20	418	4.26±30.10			
25-21	178	4.04±28.75	7.89	2	0.00
≥26	39	4.85±28.49			
Age at first childbirth					
≥20	199	3.94±30.35			
25-21	216	4.14±29.46	2.46	3	0.02
30-26	85	4.20±29.30			
≥31	18	4.59±28.52			
Duration of marriage					
≥5	206	4.05±28.14			
10-6	152	4.28±28.44	2.33	3	0.04
15-11	108	4.28±29.44			
≥16	166	4.38±30.32			

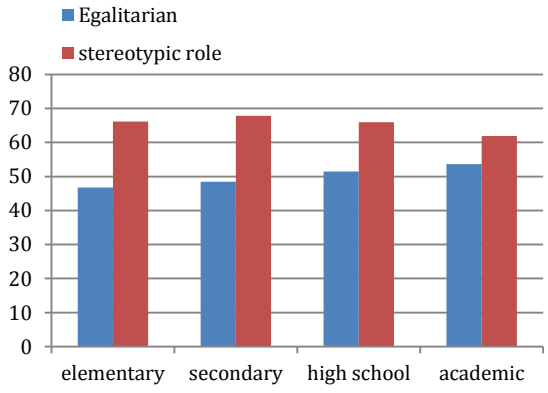

Figure 1. Comparison of the mean scores of egalitarian and stereotypic gender attitudes, based on subjects' educational level

siblings was associated with less egalitarian attitudes and more stereotypic mindsets.

According to Pearson's correlation test, duration of marriage was significantly related to egalitarian (P=0.002) and stereotypic (P=0.001) attitudes. The correlation coefficient was positive for gender egalitarianism (r=0.12) and negative for gender role stereotypes (r=-0.12). This finding indicated that longer duration of marriage was associated with more egalitarian attitudes and lower acceptance of gender stereotypes (Tables 1 & 2).

Pearson's correlation coefficient showed a significant relationship between duration of marriage and egalitarian (P=0.03) and stereotypic (P=0.04) attitudes. The correlation coefficient was negative for egalitarian beliefs (r=-0.17) and positive for stereotypic attitudes (r=0.19). This finding indicated that longer marriage duration could lead to less egalitarian attitudes and more stereotypic beliefs (Tables 1 & 2).

As Pearson's test results showed, female age at first birth were significantly correlated with egalitarian (P=0.02) and stereotypic (P=0.03) attitudes. The correlation coefficient was positive for egalitarian attitudes (r=0.19) and negative for gender stereotypes (r=-0.19). This finding indicates that older age at first birth is correlated with more egalitarian and less

stereotypic attitudes toward gender roles (Tables 1 & 2).

According to ANOVA test, education level was significantly correlated with egalitarian (P<0.001) and stereotypic (P=0.002) attitudes, i.e., participants with higher levels of education obtained higher scores of egalitarian attitudes and lower scores of stereotypic beliefs (Figure 1). In addition, Tukey's test showed a significant difference between subjects with elementary (P<0.001) and secondary (P=0.001) education in terms of egalitarian attitudes. Also, Tukey's test showed that stereotypic attitude scores were significantly different among individuals with secondary (P=0.008) and high school education (P=0.04).

T-test found a significant difference in the mean score of egalitarian attitudes among women with the intention to pursue education and those who did not (P=0.02) (116.37±15.35 vs. 111.93±14.22). A similar finding was obtained regarding the mean score of stereotypic attitudes (29.61±4.11 vs. 29.85±4.29) (P=0.02).

As ANOVA results indicated, occupational status was significantly associated with egalitarian (P=0.01) and stereotypic (P=0.04) attitudes. Female students obtained the maximum score of egalitarian attitude and the minimum score of gender role stereotypes; on the other hand, working participants obtained the minimum score of egalitarian attitudes and the maximum score of stereotypic beliefs (Tables 1 & 2). Tukey's test showed a significant difference between students and housewives regarding stereotypic (P=0.02) and egalitarian (P=0.04) attitudes towards gender roles.

However, as ANOVA test results indicated, income level and marital status were not significantly correlated with egalitarian (P=0.58) or stereotypic (P=0.70) attitudes. Also, ANOVA test showed no significant relationship between marital status and egalitarian (P=0.27) or stereotypic (P=0.66) attitudes.

According to Pearson's test, order of birth was not significantly associated with egalitarian (P=0.37) or stereotypic (P=0.36) attitudes. Moreover, as Pearson's test showed, time interval between marriage and first child birth was not significantly related to egalitarian (P=0.16) or stereotypic (P=0.37) attitudes. Also, age difference of spouses was not significantly related to egalitarian (P=0.89) or stereotypic (P=0.31) attitudes, based on Pearson's test.

Discussion

The present study evaluated women's attitudes toward gender roles in Mashhad. We also tried to compare these attitudes among females of different age groups and determine the influential factors. Egalitarian and stereotypic attitudes toward gender roles were significantly correlated with age of marriage, family size, educational level, and occupational status.

In our study, the mean stereotypic attitude score was higher than the egalitarian attitude score. Results of the present study were contrary to the findings of Kiani et al. (2008) in Zanjan, Iran, conducted on 160 employees (men and women) (10). In Kiani's study, stereotypic attitude score was lower and egalitarian attitude score was higher than that reported in the present study; this could be due to differences among participants. Moreover, in Kiani's study, subjects were mostly employees and both genders were evaluated; these points might have influenced the results, as well.

A study by Motiejunaite (2008) showed that Russians supported traditional gender roles more than Swedish people (16). Bernhard (2006) reported that Swedish females showed more egalitarian attitudes toward gender roles; only 14% of women had traditional attitudes towards their roles, which was different from the present study (17). Henz (2008) in Germany showed that gendered division of household tasks was almost equal or semi-equal between men and women, which was inconsistent with the findings of the present study (18); this discrepancy could be due to differences in the social structure and female status in these two societies.

According to the present study, prevalence of egalitarian attitude varies in different age groups. In fact, this attitude has become more prevalent among the younger generation, compared to previous generations, which may be due to changes in females' social status in recent years, as well as their increased participation in social, economic, and political activities (10, 19).

As to the findings of the present study, gender role is related to family size. This association could be related to women's higher

responsibilities in large families and less involvement in outdoor activities. Gender role attitudes could be transmitted to children, as well (20). In fact, cultural background and socio-economic status are transmitted across generations, with an impact on gender role attitudes (21).

In the current study, age of marriage and gender role attitudes were correlated. This association was also observed in Zhang's study (2006), conducted on 470 Chinese students. In the mentioned study, age of marriage and egalitarian attitudes toward gender roles were significantly correlated (22).

According to Caldwell's study in Sri Lanka, the long-term influence of late marriage is a reply to social pressure (23). In patriarchal communities, children's early marriage is normally decided by parents. Overall, changes in marriage patterns such as the emergence of romantic relationships, long-term celibacy, and absence of family pressure affect gender roles (23).

In the present study, a relationship was found between duration of marriage and gender role attitudes, which was inconsistent with the findings of a study by Rogers (2000) (24). This inconsistency may be due to the effect of changes in family structure on families' attitudes towards gender roles (25). Moreover, Tallichet reported that marriage causes changes in gender role attitudes (26).

In the current study, a relationship was found between women's age at first childbirth and gender role attitudes, which was contradictory to the findings of Bernhard's study (2006). As Bernhard reported, time of first childbirth was not correlated with gender roles (17). This discrepancy may be due to social differences and variations in sampling methods. Moreover, in the mentioned study, participants were within the age range of 22-30 years and completed the questionnaires via E-mails, while in the present study, subjects were within the age range of 15-66 years and were referred to health care centers.

The current research reported a relationship between educational level and gender role attitudes. Kiani's study (2008) also reported a correlation between egalitarian attitudes and educational level; individuals with higher education level had more egalitarian attitudes (10). Similarly, Wernen (2003) in USA found that highly educated individuals with higher levels of income had modern attitudes and supported gender equality (27).

In Iran, Ahmadi (2004) studied the effect of some socio-cultural factors on gender discrimination in females of Kerman and nearby villages and found obvious gender discrimination in these areas. Educational level of males and females was one of the most influential factors for gender discrimination (28). Additionally, Tallichet (1986) showed that females with egalitarian attitudes during adolescence are more likely to pursue their education (26).

Similarly, Bryant (2003) stated that students develop more egalitarian attitudes during their academic years (29). It should be noted that education by itself cannot play an influential role in the development of egalitarian attitudes, but a combination of factors such as living in dormitories, developing leadership skills, discussions on political issues, and more reading time could promote such mindsets (11).

The present study showed a significant relationship between occupational status and gender roles. However, Zhang's study showed no relationship between the occupation of Chinese students' parents and egalitarian attitudes (22); this observation was inconsistent with the present findings, which may be due to differences in the cultural structures of studied communities and parents' occupations.

Stickeny (2007) conducted a study on 4,785 male and 4,368 female subjects from 28 countries in North and South America, Eastern and Western Europe, Asia, Mediterranean regions, and the South Pacific. According to the findings, females with more egalitarian attitudes had more income, compared to females with traditional attitudes. Furthermore, a significant relationship was found between gender role attitudes and working time among men and women (30).

Fare (2013) showed that mothers' attitudes towards their employment status affected their children's understanding of gender roles (12). This could be due to the fact that people with different occupations hold different values (33), and females' employment increases their self-

respect and skillfulness (32). Furthermore, some factors related to employment such as job satisfaction could influence women's gender role attitudes (33).

Females with egalitarian attitudes accept responsibilities other than household chores and participate more actively in social activities (e.g., employment) (17). In fact, higher educational level and more active participation in workplace, especially for women, lead to modern attitudes toward gender roles and different life expectations (34).

In the present study, no relationship was found between marital status and gender role attitudes. In Rice's study (1995), gender role attitudes of single and married participants were similar (35). In a study by Plutzer (1988), divorced females had less traditional attitudes and believed in gender equality more than others. In this study, egalitarian attitudes were related to the low quality of marital relationship, increased conflicts between couples, and higher risk of divorce (36); this discrepancy with the current findings might be due to differences among participants.

In our study, no relationship was found between gender role and income level, which was inconsistent with the results of a study by Harris. As Harris indicated, females with traditional gender roles earned less money. In other words, females with more traditional attitudes played traditional female roles and had lower income (37); this discrepancy with the current findings may be due to recording family income instead of females' income level in the mentioned study.

Our study showed no relationship between birth order and gender role attitudes. However, Punch's study (2001) in Bolivia confirmed the relationship between birth order and gender-based division of household tasks (38). Moreover, Kammeyer (1966) in USA found that females who were the first daughters of family had more traditional attitudes, compared to other girls (39); therefore, birth order could influence social attitudes (40). This contradiction with the current findings could be due to differences in the social structures of these communities.

In our study, participants had different understandings of questionnaire statements. Also, we had no access to females' status in social networks, their social roles, professional experience, or job satisfaction. In fact, these factors might have influenced gender role attitudes and could be considered as the limitations of our study. Considering the large sample size of this study and distribution of participants selected from different healthcare centers, our results could be applied for further health care planning and nation-wide policy-making in order to promote women's health.

Conclusion

Differences in gender role attitudes of women with different ages, family size, duration of marriage, educational level, and employment status indicate that these attitudes are influenced by economic, social, and demographic factors. Clinical psychologists, psychiatrists, marriage consultants, parents, and social psychologists could apply the obtained results to be more familiarized with different attitudes towards gender roles. Attention to all the mentioned factors could lead to the promotion of personal and community health. It is recommended that further research be conducted on other demographic characteristics to identify the contributing factors for gender role attitudes and plan future interventions for national health promotion.

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Conflicts of interest

Authors declared no conflicts of interest.

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