A Review of the High Level of Education and Reduced Fertility in Iranian Women: Have Women Been Empowered?

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Abstract
An increase in the number of women attending university is a relatively new phenomenon. According to international reports, greater numbers of academically educated women have reduced their fertility rate. This phenomenon has contributed to the reduced fertility in Iran in recent decades. According to international research, women’s empowerment has affected their fertility through education. This study applied a narrative review method. It set out to examine the impact of the increasing number of women in academic education and their reduced fertility on Iranian female empowerment. Searching electronic databases, 464 scientific documents published during 1994-2016 were retrieved out of which 71 were included in the study. Research showed that the higher level of women’s education did not lead to equality with men in terms of their economic, socio-cultural, and political status. Moreover, it was revealed that educated women were deprived of their right to make their own decisions on family planning issues. Female empowerment, as one of the main objectives in sustainable development, needs more emphasis on women’s reproductive rights and a strategy to reduce gender discrimination considering the related cultural issues.

Keywords: Education, Empowerment, Fertility, Iran, Women

Context
In 1994, female empowerment and gender equality were emphasized as global priorities at the Fourth International Conference on Population and Development (1). Since then, extensive effort has been made to extend female empowerment internationally (2). Today, empowering women is a controversial issue in development (3). It is considered as the main indicator of women’s status (4).

The word “empowerment”, describes freedom of choice and personal performance in terms of increased power and personal control of resources and decisions that affect their lives (5). The benefit of female empowerment is not limited to women; it also helps them play a more effective role in sustainable development and develops social well-being in their society (6,7). Various factors can effect female empowerment and education has been mentioned in numerous studies (5,8). Education, especially higher education can facilitate realization of a woman’s social, economic, and political potential as well as her particular conditions and an awareness of her human rights (6,9,10). Likewise, education plays an important role in overcoming barriers that block expansion of female empowerment (11).

From another perspective, fertility rates have decreased in recent decades in developed and developing countries and many societies have encountered demographic changes (12). Researchers believe that the main causes of reduced fertility are level of education and age of women at marriage as well as competition for employment and promotion of socio-economic status and living standards (13-16). According to the demographic and health survey report of the US Agency for International Development in 2010, Asian women’s empowerment contributed to reduced fertility and education was the only strategy to curb this issue (17).

In majority of international statistics and sources, female empowerment has been measured according to the level of education and its impact on reducing fertility rates (8,18). However, some studies have reported that there is no relationship between female empowerment and factors such as the level of education. Besides, there have been many debates on methods of female empowerment, none of which are clear (19). Indeed, the definition of empowerment is still vague and there is no specific standard to describe a concept of empowerment that is applicable to all social and cultural contexts (20). In addition, this definition depends on particular political conditions and belief system of an individual (21). Thus, it would be better to clarify the concept of empowerment according to social context rather than a
theoretical framework (22). The present narrative review aimed to examine the concept of empowerment and the role of known global factors on empowerment including education and fertility in Iranian women and the specific social, cultural, and political context of an Islamic country.

**Evidence Acquisition**

This narrative review study was conducted in 2016 using data collected from electronic databases. It was a non-systematic and a narrative review study in which the selected articles were assessed according to the author's experience; then, various theories and models were summarized and compared. Besides, the results presented as qualitative rather than quantitative. Formulation of the research question was based on a PS (Population and Situation) model and among all the factors affecting the situation (empowerment), 2 factors of education and fertility were used to address the study question (23,24). Scientific documents (carried out during 1994-2016) regarding the topic of the study were searched. The reason for choosing this period was the importance of female empowerment based on the reports presented in the International Conference on Population and Development in 1994. International electronic databases were sought using the keywords including "empowerment", "fertility", "education", "women" and "Iran", individually and in combination with each other. Their Mesh equations were also sought out. Finally, 71 scientific documents were chosen for data analysis (Figure 1).

**Results**

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO) report in 2013, nearly half of all postgraduate students were female and this trend has been stable in recent decades (25). The number of university graduate students has been increasing in Iran every year since the Islamic revolution in 1979 (9,25,26). This increase has been driven by desire for a job and to improve social-economic standing (11,27). It has been said that there is nothing quite like an education to affect female empowerment (28). According to the 2014 report of gender gap, despite women's university attendance in the last 3 decades, Iran has had one of the lowest levels of female participation in the work force (29,30). In addition, Iranian women have not reached positions equal to those of men in academic environments. Despite this increase in women's entry to university at rates higher than men, there remains a limited number of women in managerial and higher academic positions (31). The pursuit of degree level education among women is inconsistent with their participation in decision-making positions (32).

Studies conducted in both developed and developing countries such as Iran have indicated that educated women had fewer children than their non-educated counterparts (33-35). University education women often have fewer children. A university education has several consequences, such as delayed marriage and concerns related to loss of income during childbearing periods (13,16,28,36). Furthermore, studies conducted in Iran and some other...
countries have demonstrated that education reduces women's fertility by increasing feelings of functionality and self-actualization and educated women have more independence in making decisions about pregnancy and reproduction (28). The fact is that many women across the globe wish to plan their families by controlling number and timing of childbirths, but possibilities for control of fertility in different social and cultural backgrounds is heterogeneous (37). However, in reality, the impact of a mother's level of education on reduced fertility remains undetermined. Despite a strong correlation between level of education and reduced pregnancy, in reality, this relationship does not apply to all countries uniformly; sometimes it is not a choice (33). There is social pressure on educated women to have less children that is dictated by traditional gender roles (1,38).

Discussion
Higher Education & Empowerment
Education plays an important role in pursuing Iranian women's rights (6). It also serves to overcome barriers to women's economic development and empowerment (11). However, in Iran, cultural and traditional values can impede women's educational prospects. Besides, a third less female graduates are absorbed by the job market than male graduates in Iran and this highlights the inherent patriarchal structure of the society that extends to higher education (6). The World Bank has reported that, after two decades of increasing education, the slow pace of Iranian women's participation in the labor market is a mystery (25,39). Despite significant advances in the situation of Iranian women, their presence at top academic and managerial jobs does not reflect their level of education and this is due to a culture that celebrates women for being good mothers and housewives (40). The inferior position of Iranian women in universities as well as in leadership and managerial posts, has a long history and it is apparent that gender stereotypes have become institutionalized at universities. Although the number of female faculties has increased in the last 30 years, studies show that only 5% of them have managerial posts at top universities of Iran. In a study on factors affecting women accepting a managerial post in the context of Iran, it was demonstrated that home, family, and work contradictions had a negative impact on their interest in accepting a leadership post (28). Such discrimination is the result of patriarchal ideology in the society (41). This has prohibited Iranian women from reaching their full potential (40). Similarly, research by Chaudhry et al and Malik & Courtney on empowerment of Pakistani women indicated that socio-cultural norms and values had a negative impact on the situation of female graduates (3,18). In addition, a study conducted by Shetty and Hans regarding the role of education in empowerment of women and development in India indicated that gender-based discrimination such as violence, gender inequality, and family restrictions had a negative impact on women's education in India (42). The concept of discrimination as gender-based inequality to females is a global problem that inflicts many societies and takes many different forms. However, a research carried out in Iranian context shows that modernization of society and education and employment outside the home have become important sites of gender inequality (43). Although educated women are generally more willing to participate in the labor market and they expect to take advantage of their education, the gender gap in unemployment and wages has increased even with these recent higher levels of education. In other words, this higher level of education has not served to improve women's position in the labor market (11). Furthermore, women face challenges in achieving higher positions in an atmosphere of gender inequality (44).

A systematic review of studies in Iran has highlighted two main aspects of the role and place of women in science and education. Firstly, despite the acceptance of women in higher education and graduation at the top of the academic ladder, no significant difference has been determined in the status and role of women in scientific and educational institutions due to structural constraints. Secondly, gender discrimination limits women's choices through systematic exclusion of women from managerial and executive positions. The theory of “exclusion” criticizes the political, economic, and socio-cultural structures that limit women's social mobility. This theory proposes that the status quo is possible only by removing these structural constraints. However, the proponents of this theory argue that the patriarchal system of gender ideology is the bedrock of all existing attitudes and discrimination and that combating patriarchy is the first step in reducing inequality in education and other types of gender inequality (44).

One important aspect of development in communities is the level of women's education in various fields of science. Unfortunately, in the twentieth century women have not been given equal opportunities in terms of social status and power compared with men (27). Unluckily, despite the recent increase in the numbers of women attending Iranian universities and with degrees in higher education, in reality, the role of education in female empowerment is a provision of potential. The United Nations Development Programme's (UNDP's) report on human development entitled “the non-gender development model” emphasized the necessity of change in societies and cultures in the field of female empowerment. It stated that society and culture should persist with predetermined choices. It is important that every society provides equal opportunities for men and women. Culture is a highly sensitive issue in any society because it provides an important framework that governs people's behavior. In addition, cultural values are interpreted in response to new needs and circumstances, some of these are confirmed and some are challenged (45,46). In a study on empowerment of Pakistani women
through higher education, Murtaza stated that cultural barriers to women's empowerment start at home where male children are given preference over females and unfortunately this trend continues over the course of their lives. Therefore, women are restrained from decision-making processes and opportunities to improve their abilities and are assigned inferior roles. This prevents women from acquiring a higher education degree and thus they are denied an opportunity to reach their full potential in terms of independence and social responsibility (47). In a study conducted by Ejumudo in Nigeria, a revision of patriarchal culture among individuals, groups, and institutions was cited as a way to overcome barriers to gender equality and female empowerment (48). Furthermore, to achieve gender equality in employment, the government can forbid gender discrimination and provide access to equal opportunities for employment and wages (49). In another study by Ojobo regarding the role of women's education in empowering Nigerian women, female participation in education policymaking and elimination of sexism in labor are referred to as factors that can have a positive effect on female empowerment in Nigeria (50).

Low Fertility and Empowerment

Education and economic activity are the two main determinants of reduced fertility and population transition in women worldwide and in Iran (51,52). The importance of family planning for achieving the right to choose family size and timing was emphasized in the family planning guideline issued by the World Health Organization (WHO) (53). However, in some contexts, decision making on matters like fertility and childbearing have seldom been made from individual choice among educated women; decision-making has more commonly been affected by gender roles in social relationships (37,54). This is in contradiction with the concept of empowerment, defined as the expansion of freedom to make choices and to be active in determining the shape of one's own life (55).

The fact is that an ideal female citizen in Iran is characterized by her ability to coexist with tradition and modernity and to perform different tasks and responsibilities. She is expected to devote herself to traditional female function by adopting the central role of a mother, a wife, and a source of comfort and tranquility for the family; and at the same time as becoming an active member of society (56,57). Despite women's participation in providing services for their family through working that contributes to family expenses, men are not inclined to collaborate in housework, childcare, and parenting (56). Research conducted worldwide has shown that women are two to ten times more responsible for unpaid household work than men (58). In some cultures, men follow the norms and values of the past that are in their favor (59). This discrimination is related to social structure, gender roles, and stereotypes (58). Based on the studies carried out in Iranian context, if women are employed outside the home, then they only take responsibility for housekeeping without participation by their husband. As a result, working women have extra duties and should somehow take measures to coordinate social activities with housekeeping tasks and must divide their time and energy in such a way that the family still functions well (56). Therefore, when an Iranian woman participates in activities outside the home, she tries to maintain a balance between work and life through bearing less children. As a result, she cannot achieve the desired number of children (1). Abbasi-Shavazi et al in their article entitled “Change and Continuity in the family in the Islamic Republic of Iran” stated that the differences between men and women stem from differences in rights and obligations. Therefore, the division of labor and gender classification are the fundamental pillars of gender behaviors in contemporary societies (13).

According to international studies on reproductive behaviors, the theoretical view of “incompatible roles” between employment and fertility is not generalizable and is affected by factors such as division of labor and gender role and there is no a linear relationship between employment and women’s reproductive behavior (52). A study by Khan et al on determinants of female empowerment in Pakistan indicated that the level of female empowerment increased according to male participation in domestic chores (60). On the contrary, a study by Shirahase in Japan showed that although men’s participation in domestic work can increase fertility, the age of educated mothers at the time of marriage and reproduction had more impact on tendency for pregnancy (35). Several studies concluded that although increased education and female empowerment had an insignificant relationship with pregnancy, the results were not similar for social-e-political locations and societies’ subordinates (7,8,17,61). For example, despite an increase in female employment in France, pregnancy rate was not reduced (62). Accordingly, it can be inferred that there are significant contradictions in this regard and that the related evidence needs critical evaluation (7,8,17). It is possible that education can reduce a woman’s fertility by some factors other than empowerment (17). To clarify this issue, further research is required in the field of fertility to ensure basic human rights in the field of reproductive and gender equality. In addition, findings should be applied to implement legislation for removing the obstacles to childbearing (63).

Nowadays, movements on reproductive health rights openly reject demographic targets and ask for respect for reproductive freedom and health. The Action Program of the International Conference on Population and Development explicitly provides general guidelines that meet the reproductive health needs of women, empower them in terms of social and economic status and consolidate their reproductive rights (52). These reproductive rights...
are related to the right to have or not to have children at the desired time and place (4). The realization of
desire for fertility is an important reproductive right
and educated women's empowerment in relation to their
decisions on reproduction require fundamental changes
to the gendered division of labor in families and gender
stereotypes (63). Chesnais (64) used the term “fertility gap”
to describe the difference between observed and desired
number of children. He noted that it was a sign of the
need for change in the family law. Therefore, changes in
social backgrounds or implementing a wide range of laws
and regulations in educational organization, labor market
and housekeeping services are required for supporting
women who play multiple roles for fulfilling their desire
for childbearing and control of reproductive rights (65).

Conclusions
The use of human capital, education, and female
empowerment, for half the world's population and the
full use of their talents, abilities, and capacities in society
are the principal elements of success in achieving higher
levels of social development both economically and politically (44). Studies on female empowerment have
led to various definitions and descriptions. There is
difficulty in measuring female empowerment. Besides,
there is a variety of cultural factors that can be applied to
define empowerment but these may not be transferable to
other cultural contexts (17). Consequently, what has been
presented in the international literature with regards to
the role of education in women's fertility and its impact on
empowerment may not be compatible with other
cultures or transferrable to other contexts (49,55). If at
any time and for any reason, the right to choose and make
decisions to have control over life, as well as access to
different opportunities are taken away, empowerment will
not happen (4). Therefore, any discriminating factor that
reduces the control of Iranian women over their academic
achievements, fertility and generally their lives, must be
reduced (66). While women's personal rights, duties, and
opportunities are not affected by sexual medication to
make sure female empowerment as one of the objectives of
sustainable development is fulfilled in the society (4, 66).

This review of international documents shows that the
majority of countries officially agree on gender issues and the
development of an agenda after the year 2015 (67).
The development of such a strong framework requires
comprehensive attention to gender inequality, particularly
in the field of female empowerment, for quality of
education, economic achievements, and equal access to
sexual and reproductive health and rights, which seems
to be an unfinished task (68). Global gender equality
and female empowerment, has been the third objective of the Millennium Development Goals, it still has far
go. Although there has been progress in some areas,
different countries' achievements are very variable (68-
70). Iran has fulfilled its obligations under the Program of
Action in the International Conference on Population and
Development, but faced many challenges in achievement
of its goals after 2015 in terms of female empowerment
(71). Accordingly, there is the need for a systematic
effort to identify the concepts of empowerment and to
overcome cultural obstacles that block empowerment in
each country (4).

Conflict of Interests
Authors declare that they have no conflict of interests.

Ethical Issues
Not applicable.

Financial Support
This work was supported by the Tehran University of
Medical Sciences.

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