

## The Empowerment of Pregnant Women in Tonekabon, Iran

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### Abstract

**Background:** Pregnant women empowerment is viewed by policy makers and health care practitioners as a mechanism to help pregnant women adapt to physical and psychological changes after pregnancy, and gain a satisfactory experience of childbirth. The aim of this study was to determine the pregnancy-related empowerment of urban women in Tonekabon, Iran

**Methods:** The design of the study was cross-sectional. A valid empowerment scale for pregnant women was used to determine pregnancy-related empowerment. The questionnaire containing 27 questions comprised five factors: self-efficacy, future image, self-esteem, support and assurance from others, and joy of an addition to family. Higher scores in all factors mean better empowerment score. In addition, a demographic and reproductive questionnaire was also used to obtain demographics and reproductive information. A total of 200 individuals, from two active urban primary healthcare centers in Tonekabon, were selected using cluster random sampling method. All analyses were performed using SPSS version 17. Independent t-test was used to determine the relationship between demographic and reproductive variables with empowerment.

**Results:** The mean for the empowerment score of pregnant women was  $78.7 \pm 6.7$  (27 items scored from 1 to 4). The women who worked outside home had higher self esteem score than those who worked just at home (19.3 vs. 17.7) ( $p = 0.024$ ). Also the mean score of self efficacy in women with support of spouse was higher than those without their spouse support (18.1 vs. 16.1) ( $p = 0.001$ ). In women with wanted pregnancy, the joy of an addition to the score was higher compared with those with unwanted pregnancy ( $P = 0.048$ ). There was no statistically significant result found in the mean scores of the five factors (self-efficacy, future image, self-esteem, support and assurance from others, and joy of an addition to family) with age, own education, husband education, and number of pregnancy.

**Conclusion:** The results of this survey could be used not only to make efficient interventions for pregnant women, but also to promote empowerment of pregnant women.

**Keywords:** Empowerment, Iran, Pregnant women empowerment,

### Introduction

Empowerment means teaching and giving power to others so that they can rely less on others (1). According to WHO, empowerment is a process

through which individuals will have greater control over decision-making, lifestyle and activities, which can affect their health (1, 2). Women empowerment relates to processes through which women can increase their inner strength and take steps to keep their rights (3, 4). The International Conference on Population and

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Development has specifically introduced the empowerment of women as an essential component to achieve the optimum reproductive health, and, of course, gender equality and women empowerment are the Millennium Development Goals (5). However, pregnancy is a joyous time for most women, but it is often considered as a stressful period with a lot of physiological and psychological changes. These changes can have a significant impact on the daily activities of pregnant women (6, 7). But if women are educated, they can develop their inner strength and independence to improve their capabilities in order to overcome adversity, changes of pregnancy, and maternity problems so that they can have a successful pregnancy and delivery, which is the dream of every mother in advance (2, 3, 8).

Pregnancy empowerment is defined as satisfaction, happiness, independence, improvements in the interaction with other people and the environment; an increase in internal energy for a successful pregnancy and delivery, and better adaptation to the physical and psychological changes during the pregnancy and childbirth (9).

Women with the necessary knowledge and skills in pregnancy and childbirth are adequately prepared to face this period. They can have an active and effective role in their own delivery, lead their delivery with higher self-confidence and overcome their pain, fears and concerns. Providing education with regard to prenatal care, safe delivery, and post-natal care are important components of reproductive health and can play an important role in the maternal health (5, 10). Given the importance of empowering women in their independence, adaptability, and the decision associated with the choice of a normal vaginal delivery, coping with labor pain and control, it is necessary to determine the empowerment of women to achieve this goal through education and skills acquisition during prenatal care (11, 12). Since no studies in Iran have been conducted on the empowerment of pregnant women so far, the aim of this study was to determine the pregnancy-related empowerment of urban women in Tonekabon, Iran.

### Materials and Methods

This study utilized a cross-sectional, analytical-descriptive design. A total of 200 individuals from two active urban primary healthcare centers in Tonekabon,

were selected using cluster random sampling method in 2013. This study was approved by Islamic Azad University, Tonekabon Branch for ethics in medical research. The written informed consents were obtained from all pregnant women in the study. Based on the comments we got from our Statistics expert, and relying on a study by Kameda and Shimada, we decided to include at least 200 cases for the implementation of our study (9).

The history of previous cesarean delivery and unwillingness to participate in the study were the two exclusion criteria for this study. The data collection instrument was a questionnaire that was designed in two parts. The first part included demographic and obstetric characteristics, and the second part was a standard questionnaire of empowerment of pregnant women (9, 13).

The first part of the questionnaire was a demographic and reproductive form, which assessed age, educational level, job, socio-economic status, body mass index, gravidity number, type of pregnancy (unwanted or wanted). The second part of the questionnaire, which was used to measure the pregnant women, was developed by Kameda and Shimada (9). The questionnaire had already been translated into Farsi twice before it was translated into English again. In order to obtain a questionnaire equivalent to its original version, after getting permission from Kameda and Shimada and making some modifications, we had the empowerment questionnaire translated into Farsi twice, and we ultimately had the final version prepared in Farsi. Then, this version was translated into English two times separately. A final English version was prepared from these two translations and was compared with the original version. The final version went through proofreading by a group of experts of mental health, reproductive health and midwifery in order to determine the content validity and verify the minor changes made to the questionnaire. Next, the questionnaire was given to fifteen pregnant women so as to assess its readability and minor changes made to it. The questionnaires were finally given to 200 pregnant women who were eligible for the study. The content validity and reliability indices were determined by interclass correlation coefficients and Cronbach's alpha coefficient tests before the performance. The Cranach's alpha coefficient was 0.89 in this study. The

questionnaire provided scores for pregnant women based on five factors. Higher scores in all factors mean better empowerment score. Its five factors are self-efficacy (which includes 6 items related to the feeling of being able to manage pregnancy and childbirth, and self evaluation of physical ability), future image (which includes 6 items related to realistic images and goals regarding pregnancy, childbirth, hope for the future, becoming a parent, motivation to work positively during pregnancy and childbirth), self-esteem (which includes 7 items related to acceptance and approval of being pregnant and a parent), support and assurance from others (including 4 items concerning acceptance, respect, support and cooperation), and joy of an addition to family (including 4 items about score of life enjoyment for the addition of a new family member). The questionnaire was based on Likert scale rating, from "strongly disagree" to "strongly agree". The total minimum score was 27 and the maximum score was 108. Statistical data were analyzed using SPSS version 17. Independent t test was used to determine the relationship between demographic and reproductive variables with empowerment, the P-value <0.05 was considered significant.

## Results

The study included pregnant women with a mean age of  $26.4 \pm 3.8$ ; among whom, 36% were in the first trimester of pregnancy; 55.5% of pregnant women were experiencing their first pregnancy; 48.0% had a college degree; and 90.5% were housewives, and 79.5% of pregnancies were wanted. The overall score of pregnant women empowerment score ranged from 27 to 108 (27 items scored from 1 to 4) with a mean  $78.7 \pm 6.7$ . The means of the empowerment score of pregnant women in Self-efficacy, future images were  $17.9 \pm 2.8$ ,  $15.3 \pm 1.9$ , (out of 24) respectively. The mean score of self-esteem factor of empowerment was  $19.2 \pm 1.9$  (out of 28). The means of pregnant women empowerment in support and assurance from others, and the joy of an addition to family were  $12.7 \pm 1.6$ ,  $13.7 \pm 1.8$  (out of 16), respectively (Table 1).

In this study, we compared the empowerment factor score of pregnant women with their demographics and reproductive characteristics. The women who worked outside home had higher self-esteem score compared with those who worked just at home ( $19.3$  vs.  $17.7$ ) ( $p=$

Table 1. The pregnancy-related empowerment of urban women in Tonekabon, Iran

| Pregnancy-related empowerment factors | Mean | SD  | 95% CI     |
|---------------------------------------|------|-----|------------|
| Self-efficacy                         | 17.9 | 2.8 | 17.5, 18.3 |
| future image                          | 15.3 | 1.9 | 15.1, 15.6 |
| Self-esteem                           | 19.2 | 1.8 | 18.9, 19.4 |
| Support and assurance from others     | 12.7 | 1.6 | 12.5, 12.9 |
| Joy of an addition to family          | 13.7 | 1.8 | 13.4, 13.9 |

0.024). Moreover, the mean score of self-efficacy in women with the support of spouse was higher than those without the support of spouse ( $18.1$  vs.  $16.1$ ) ( $p=0.001$ ). In women with wanted pregnancy, the joy of an addition to the family score was higher compared with those with unwanted pregnancy ( $P=0.048$ ). There was no statistically significant result found in the mean scores of the five factors (self-efficacy, future image, self-esteem, support and assurance from others, and the joy of an addition to family) with age, own education, husband education, and number of pregnancy (Table 2).

## Discussion

As regards the relationship between mothers' occupations and the mean empowerment, the only statistically significant relationship was the self-esteem factor score. Occupation plays an important role in changing one's belief about the ability to implement positive behavior, or self-esteem. Self-esteem is one's own ability to deal with stressful situations and perform essential behaviors, which can be achieved through education (14). The high level of education can lead to deep learning and better skills (15).

With regard to pregnancy acceptance, among the mean scores of the different factors of empowerment with regard to wanted and unwanted pregnancies, the only significant relationship was the joy of addition of a new family member factor score ( $p=0.04$ ). They also had more self-esteem compared with women who had unwanted pregnancies, although the difference was not statistically significant. To determine the exact relationship between these variables on other aspects of empowerment, a larger sample size was required to have a sufficient number of participants with wanted and unwanted pregnancies. The evidence suggested that psychological and social disorders, low self-

Table 2. Mean empowerment factors among pregnant women according to demographics and reproductive characteristics

| Variables                      | Factor 1<br>Mean $\pm$ SD | Factor 2<br>Mean $\pm$ SD | Factor 3<br>Mean $\pm$ SD | Factor 4<br>Mean $\pm$ SD | Factor 5<br>Mean $\pm$ SD | P-value |
|--------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------|
| <i>Age (years)</i>             |                           |                           |                           |                           |                           |         |
| $\leq 30$                      | 17.8 $\pm$ 2.7            | 15.3 $\pm$ 1.9            | 19.3 $\pm$ 1.7            | 12.7 $\pm$ 1.6            | 13.7 $\pm$ 1.7            | 0.728   |
| $> 30$                         | 18.0 $\pm$ 3.1            | 15.3 $\pm$ 2.0            | 19.0 $\pm$ 2.1            | 12.8 $\pm$ 1.6            | 13.4 $\pm$ 2.1            |         |
| <i>Education level</i>         |                           |                           |                           |                           |                           |         |
| High school diploma or less    | 17.5 $\pm$ 2.6            | 15.4 $\pm$ 2.0            | 19.1 $\pm$ 1.9            | 12.6 $\pm$ 1.6            | 13.4 $\pm$ 1.8            | 0.861   |
| College degree                 | 17.4 $\pm$ 2.8            | 15.2 $\pm$ 1.8            | 19.1 $\pm$ 1.8            | 12.6 $\pm$ 1.6            | 13.6 $\pm$ 1.8            |         |
| <i>Own job</i>                 |                           |                           |                           |                           |                           |         |
| Work inside the home           | 17.7 $\pm$ 2.8            | 15.3 $\pm$ 1.9            | 19.2 $\pm$ 1.8            | 12.7 $\pm$ 1.6            | 13.6 $\pm$ 1.8            | 0.024   |
| Work outside the home          | 19.2 $\pm$ 2.4            | 15.7 $\pm$ 2.0            | 19.1 $\pm$ 1.9            | 12.7 $\pm$ 1.4            | 14.0 $\pm$ 1.7            |         |
| <i>Husband education level</i> |                           |                           |                           |                           |                           |         |
| High school diploma or less    | 17.3 $\pm$ 2.7            | 15.5 $\pm$ 1.9            | 19.2 $\pm$ 1.7            | 12.4 $\pm$ 1.5            | 13.4 $\pm$ 1.8            | 0.111   |
| College degree                 | 18.0 $\pm$ 2.8            | 15.1 $\pm$ 2.0            | 19.0 $\pm$ 1.8            | 12.8 $\pm$ 1.7            | 13.7 $\pm$ 1.7            |         |
| <i>Gravidity</i>               |                           |                           |                           |                           |                           |         |
| First                          | 18.0 $\pm$ 2.9            | 15.4 $\pm$ 1.9            | 19.0 $\pm$ 1.8            | 12.6 $\pm$ 1.6            | 13.6 $\pm$ 1.8            | 0.280   |
| $> 1$                          | 17.5 $\pm$ 2.5            | 15.0 $\pm$ 1.7            | 20.0 $\pm$ 1.9            | 12.8 $\pm$ 1.6            | 13.7 $\pm$ 1.7            |         |
| <i>Type of pregnancy</i>       |                           |                           |                           |                           |                           |         |
| Unwanted                       | 17.7 $\pm$ 2.2            | 15.5 $\pm$ 1.8            | 19.6 $\pm$ 2.1            | 12.7 $\pm$ 1.6            | 13.2 $\pm$ 2.2            | 0.048   |
| Wanted                         | 17.9 $\pm$ 2.9            | 15.3 $\pm$ 1.9            | 19.1 $\pm$ 1.7            | 12.7 $\pm$ 1.6            | 13.8 $\pm$ 1.7            |         |

esteem and self-efficacy were more common among women who had unwanted pregnancies (16-18). Also, there was a significant relationship between the empowerment and the support of spouse with regard to self-efficacy factors. It is thought that the help and support of spouse in household chores and also meeting the emotional needs can raise a woman's ability to do things and deal with stressful situations better (19).

Since there have been no studies in Iran on pregnant women's empowerment, an effective step can be taken to promote women's empowerment in order to realize the ideal goals of maternal health, which can ensure public health through proper planning in order to create a positive attitude towards natural vaginal delivery.

## Conclusion

This study had some limitations, which should be considered. The pregnant women with different prenatal care were selected. It should be mentioned that the health service may affect women's empowerment. In addition, a cross-sectional survey dataset was used to assess pregnancy-related empowerment; thus, it

limited its ability to assess causal inferences. We assume that longitudinal studies are more appropriate for assessing the pregnancy-related empowerment.

Despite the limitations mentioned, the present study was one of the few studies that determined women's status and empowerment in Iran. The study demonstrated the influence of both demographic characteristics and reproductive data on women's empowerment factors. These results highlight the important influence of one's own occupation, support of spouse, and wanted pregnancy on women's empowerment.

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## Conflict of interest

None declared.

## References

1. Kupratakul J, Taneepanichskul S, Voramongkol N, Phupong V. A randomized controlled trial of knowledge sharing practice with empowerment strategies in pregnant women to improve exclusive breastfeeding during the first six months postpartum. *J Med Assoc Thai*. 2010;93(9):1009-1018. Epub 2010/09/29. PubMed PMID: 20873071.
2. Baffour TD, Jones MA, Contreras LK. Family health advocacy: an empowerment model for pregnant and parenting African American women in rural communities. *Fam Community Health*. 2006;29(3):221-228. Epub 2006/06/16. doi: 00003727-200607000-00009 [pii]. PubMed PMID: 16775472.
3. Pour Eslami M. Empowerment in health promotion. *Teb Va Tazkieh*. 2004;7(48):9-20.
4. Kabeer N. Gender equality and women's empowerment: A critical analysis of the third millennium development goal 1. *Gender & Development*. 2005;13(1):13-24.
5. Leuning CJ, Ngavirue B. Safe child care and women's empowerment in the developing world. *Health Care Women Int*. 1995;16(6):537-550.
6. Kazemi F, Nahidi F, Kariman N. Assessment scales, associated factors and the quality of life score in pregnant women in Iran. *Global Journal of Health Science*. 2016;8(11):128-139.
7. Abdollahi F, Zain AM. The mode of delivery and some selected obstetric factors as predictors of post-partum depression. *Caspian J Reprod Med*. 2015;1(2):4-22.
8. Cunningham K, Ruel M, Ferguson E, Uauy R. Women's empowerment and child nutritional status in South Asia: a synthesis of the literature. *Matern Child Nutr*. 2015;11(1):1-19. Epub 2014/05/23. doi: 10.1111/mcn.12125. PubMed PMID: 24850533.
9. Kameda y, shimada k. Development of an empowerment scale for pregnant women. *Journal of the tsurume Health Science Society Kanazawa University*. 2008;32(1):39-48.
10. McAllister E. Transparency in maternity care: Empowering women to make educated choices. *The Journal of Perinatal Education*. 2008;17(4).
11. Shimamoto K, Gipson JD. The relationship of women's status and empowerment with skilled birth attendant use in Senegal and Tanzania. *BMC pregnancy and childbirth*. 2015;15:154. doi: 10.1186/s12884-015-0591-3. PubMed PMID: 26205512; PubMed Central PMCID: PMC4514446.
12. Sipsma H, Ofori-Atta A, Canavan M, Urduy C, Bradley E. Empowerment and use of antenatal care among women in Ghana: a cross-sectional study. *BMC Pregnancy and Childbirth* 2014, 14:364.
13. Jahdi F, Montazari A, Baluchi mahani M, Behbudi moghadam Z. Effective group prenatal care on empowerment of pregnant women. *Payesh*. 2014;13(2):229-234.
14. khorsandi M GF, Hydarnia A, Faghyhzdeh S, Akbarzadeh A, Vafahi M. . Survey of Percepted self efficacy in pregnant women. *Journal of medical council of Islamic Rrpoublic of Iran*. 2008;26(1):89-95.
15. Bastani F, Hydarnia A, Vafaei M, Kazemnejad A, Kashani M. Effect of Relaxation education on self efficacy theory in pregnant women mental health. *Andishe va Rafter*. 2006;12(2):109-116.
16. Moshki M, Ashtarian H. Perceived health locus of control, self-esteem, and its relations to psychological well-being status in Iranian students. *Iranian journal of public health*. 2010;39(4):70-77. PubMed PMID: 23113040; PubMed Central PMCID: PMC3481683.
17. Meshki M, Ghofranipour F, Azadflah P, Hajizadeh E. Effect of educational program with use of self esteem and health locus of Control beliefs on college students Psycholog health promotion. 2008(4):38-45.
18. Makvandi S, Etemadi kermani A. A quality of life in pregnant women referring to eyzeh health centers. *J of Kermansha University of Medical science*. 2012;16(1):37-41.
19. Abbas zadh F, Bagheri A, Mehran N. quality of life in pregnant women. *Payesh*. 2010;9(1):69-75.