Original Article

J Babol Univ Med Sci
Vol 19, Issu 3; Mar 2017. P:29-37

Self-reported Health and Health-promoting Behaviors in Women of Reproductive Age

S. Bakouei (MSc)[1], F. Bakouei (PhD)[2*], H. Ahmari Tehran (Msc)[1], M. Raisi (Msc)[1], H. Dehghani (MSc)[1]

1.Faculty of Nursing and Midwifery, Qom University of Medical Sciences, Qom, I.R.Iran
2.Department of Midwifery, Faculty of Medicine, Babol University of Medical Sciences, Babol, I.R.Iran

J Babol Univ Med Sci; 19(3); Mar 2017; PP: 29-37
Received: Dec 18th 2016, Revised: Jan 23th 2017, Accepted: Feb 14th 2017.

ABSTRACT

BACKGROUND AND OBJECTIVE: Self-reported health is a reliable indicator of health and a good indicator of mortality and morbidity, which is associated with several factors including demographic, socioeconomic, behavioral and psychological factors. This study aims to investigate self-reported health in women of reproductive age and its relationship with health-promoting behaviors and socio-demographic factors.

METHODS: This cross-sectional study was conducted among 330 women of reproductive age admitted to selected health care centers in Qom in spring 2016. The women were categorized in two groups of good and poor health based on the self-reported health question "how would you describe your general health?". The health-promoting lifestyle profile II (HPLP II) questionnaire was used to assess health-promoting behaviors with the total possible score ranging from 52 to 208.

FINDINGS: The mean age of the studied women was 29.6±6.2 years. T-test demonstrated that the mean scores of stress management (19.92±4.02), spiritual growth (26.33±4.76) and nutrition (25.92±4.66) in the women with good health were significantly higher compared to women with poor health (18.65±4.61, 24.44±5.55, 24.35±4.89, respectively). In the final analysis based on the logistic regression model, only the factors of income adequacy for living expenses (CI=1.778-9.625, OR=4.136, P.V=0.001) and spiritual growth (CI=0.872-0.985, OR=0.926, P.V=0.04) remained as significant factors.

CONCLUSION: Considering the results of this study, income adequacy for living expenses and spiritual growth are the indicators associated with self-reported health in women of reproductive age.

KEY WORDS: *Self-report health, Healthy lifestyle, Socio-demographic characteristics, Women, Reproductive age.*

Please cite this article as follows:
Bakouei S, Bakouei F, Ahmari Tehran H, Raisi M, Dehghani H. Self-reported Health and Health-promoting Behaviors in Women of Reproductive Age. J Babol Univ Med Sci. 2017;19(3):29-37.

***Corresponding author: F. Bakouei (PhD)**
Address: Department of Midwifery, Faculty of Medicine, Babol University of Medical Sciences, Babol, I.R.Iran
Tel: +98 11 32190597
E-mail: bakouei2004@yahoo.com

Introduction

Self-reported health is a simple yet reliable indicator of general health (1,2) and a proper indicator of mortality and morbidity (3,4), which is widely used in medical and epidemiologic researches (5). Researchers have proved that perception of health is often consistent with the physician's assessment (6). Self-reported health is associated with several factors including demographic, socioeconomic, behavioral, psychological, and other related factors (1,7,8). People have different self-reported health based on their socioeconomic condition. People with poor socioeconomic condition have weaker self-reported health (9).

Lately, international studies have considered lifestyle–related habits such as sleep and exercise (5). People with active lifestyle report a better perceived health (10,11). Several studies have reported the relationship between lifestyle behaviors and self-reported health, particularly in regard with physical activity (12–14) and healthy diet (15,16).

Lifestyle is a concept that includes behaviors, attitude and outlook on life and health behaviors include actions of lack of actions influence health directly or indirectly (17).

However, there are few studies that indicate whether health–promoting behaviors are associated with self-reported health (18). Understanding the factors related to self-reported health can help professional experts prioritize health promotion interventions and prevent diseases (16).

Considering the fact that women of reproductive age constitute the majority of the female population of Iran (19) and considering that reproductive age is highly important because it influences major changes and transitions in women's lives, choosing a lifestyle and the behaviors associated with that particular lifestyle plays a significant role in women's health and the outcomes affect their physical, psycho-mental and social performance and physical well-being (20). On the other hand, women's health in this period affects their long – term health as well as their family and their children's health (21).

Therefore, we may have healthier generations in the future. Ignoring women's health may have adverse effect on next generation (18). Considering the recent changes in patterns of health and disease, understanding the factors that affect the health of women of reproductive age is very important. According to the searches, there are limited studies about components of self-reported health in Iran. Considering the importance of disease prevention and health in women of reproductive age, the present study aims to determine the status of self-reported health and its association with health-promoting behaviors (lifestyle) based on socio-demographic factors in women of reproductive age admitted to health care centers in Qom.

Methods

After receiving permission from the ethics committee of Qom University of Medical Sciences (MUQ.REC.1394.161), this cross-sectional study was conducted among 330 women of reproductive age admitted to selected health care centers in Qom in spring 2016.

8 active medical centers having most patients were randomly selected from the north, south, east and west of Qom so that we could have the maximum diversity in socio-demographic variables. Sample size was chosen using the formula for comparing the two groups based on standard deviation of 4 (according to a pilot study) and standard difference of 2 in each group. Type I error was considered 0.05 and test power was considered 0.8.

Patients with Iranian nationality, resident of Qom, age range of 15–49 years, the absence of known diseases as severe mental disability and psychiatric disorders (who lacked the ability to complete the questionnaires) and lack of pregnancy entered the study. Self-reported health was measured using one question on a Likert scale of 5 (1=excellent, 2=very good, 3=good, 4=average, 5=bad): “overall, how do you describe your health?”. For analysis, this variable was categorized into two groups of good health (combination of excellent, very good, good) and poor health (combination of average and bad). To study the variable of health promoting behaviors, Promoting Lifestyle Profile II (HPLP-II) was used, designed by Walker et al. in 1987 based on Pender's health promotion model. This questionnaire provides a multidimensional assessment of health promoting behaviors (22).

This self-report scale contains 52 behavior items with Likert scale of 4 in 6 dimensions of health responsibility, physical activity, nutrition, spiritual growth, stress management and interpersonal relations. Scores range from 1 (never) to 4 (always). Higher scores indicate more participation in health promoting behaviors. This scale has been used in several studies and its validity and reliability is confirmed by

Cronbach's alpha coefficients 0.87 (23). The 52 items include 9 items in health responsibility dimension, 8 items in physical activity dimension, 9 items in nutrition dimension, 9 items in spiritual growth dimension, 8 items in stress management dimension and 9 items in interpersonal relation dimension. Total score of HPLP-II is calculated using the mean score of 52 items. The participants were asked to score each item according to Likert response of 1=never, 2=sometimes, 3=often, 4=always.

The mean score was calculated for each dimension and for the whole scale. The total possible score of questionnaire is within the range of 52 to 208. To study the socio–demographic variables, the questionnaire designed by the team of researchers including age, ethnicity, education level, marital status, employment status, monthly income sufficiency for living expenses, household size number of rooms available (except for kitchen, bathroom and toilet) (to determine congestion index) was used. The number of rooms was divided by the number of family members and was classified into 3 levels: low (1 or lower), average (1 to 2) and high (more than 2) (24). Before the qualitied participants enter the study, the goal of the study was explained to the participants and a written informed consent was obtained from them and they were reassured that they could exit the study whenever they wish to and they were reassured about the fact that their information for data collection and analysis shall be kept confidential. After completing the questionnaire, the data were analyzed using SPSS Ver. 13 and descriptive and analytical indices. Chi-square test was used to study the relationship between socio–demographic variables, T–Test was used to study the relationship between health promoting behaviors in the two groups and in the final step, the variables entered the logistic regression model to control the effects of contextual factors (socio – demographic variables) and predict the effect of health promoting behaviors on self-reported health, while $p<0.05$ was considered significant.

Results

Overall, 330 women of reproductive age (aged 15–49 years) with a mean age of 29.6±6.2 were studied. Most of them were married (92.1%), housewives (71.3%), had high school or university education (37%) and had Persian ethnic background (63.4%). The mean health-promoting lifestyle profile II was 136.64±22.37. The highest and lowest score of the participant women were found in interpersonal relation dimension (26.43±4.21) and physical activity dimension (14.66±4.62), respectively (table 1).

Table 1. The socio–demographic characteristics and health promoting behaviors (HPLP-II) of women of reproductive age

Socio – demographic characteristics	N(%)	Socio–demographic characteristics	N(%)
Age group (years)		**Income adequacy for living expenses**	
15-25	82(24.9)	No	56(17.2)
26-35	180(54.7)	Partly	162(50)
36-49	67(20.4)	Yes	107(32.8)
Marital status		**Congestion Index**	
Married	303(92.1)	low	55(15.1)
Widow / divorced	9(2.7)	medium	148(47.3)
Single	17 (5.2)	high	120(37.7)
Ethnicity		**Dimension of family (person)**	
Persian	201(63.4)	Less than 4	161(50.3)
Azeri	63(19.9)	4–5	135(42.2)
Other	53(16.7)	More than 5	24(7.5)
Education status		**Health promoting behaviors**	**Mean±SD**
Illiterate	37(11.3)	Nutrition	25.51±4.75
Primary school	43(13.1)	Physical activity	14.66±4.62
High school	124(37.9)	Health responsibility	23.64±5.23
University	123(37.6)		
Job status		Spiritual growth	25.85±5.05
Housewife	226(71.3)	Interpersonal relations	26.43±4.21
Employee	58(18.3)	Stress management	19.60±4.21
Student	33(10.4)	Total score	136.64±22.37

Although socio–demographic differences were observed in the two groups of good health and poor health, these differences were only significant in terms of income adequacy for living expenses (p=0.001) and it was close to significance level in terms of education status (p=0.063) (table 2). The dimensions related to self–reported health including stress management (p=0.021), spiritual growth (p=0.004) and nutrition (p=0.012) had significant difference in the two groups of good and poor health (table 3). In the final analysis, after entering the variable of income adequacy for living expenses (significant factor in the initial analysis) and these three dimensions of health promoting behaviors into logistic regression model, only the variables of income adequacy for living expenses and spiritual growth stayed significant. Results also demonstrated that women who answered "No" to the question "Does family income meet the living expenses of your family?" had at least four times poorer health than those who answered "Yes" (p=0.001, OR=4.136). Regarding the dimension of spiritual growth, for each one point increase in this dimension for women, about 8% less poor health was observed (p=0.04, OR=0.926) (table 4).

Table 2. The socio–demographic characteristics of women in the two groups based on self–reported health

Self–reported health / Variable	Good N(%)	Poor N(%)	P-value	Self–reported health / Variable	Good N(%)	Poor N(%)	P-value
Age group (years)				**Job status**			
15–25	59(72.8)	22(27.2)	0.25	Housewife	165(73)	61(27)	0.81
26–35	137(76.1)	43(23.9)		Employee	42(72.4)	16(27.6)	
36–49	44(65.7)	23(34.3)		Student	25(78.1)	7(21.9)	
Marital status				**Income adequacy for living expenses**			
Married	220(73.3)	80(26.7)	0.88	No	29(51.8)	27(48.2)	0.001
Widow/divorced	6(66.7)	3(33.3)		Partly	121(74.7)	41(25.3)	
Single	12(70.6)	5(29.4)		Yes	87(81.3)	20(18.7)	
Ethnicity				**Congestion Index**			
Persian	149(74.1)	52(25.9)	0.87	low	34(77.3)	10(22.7)	0.83
Azeri	45(71.4)	18(28.6)		medium	101(73.2)	37(26.8)	
Other	40(75.5)	13(24.5)		high	83(75.5)	27(24.5)	
Education status				**Dimension of family (person)**			
Illiterate	23(62.2)	14(37.8)					
Primary school	29(67.4)	14(32.6)	0.063	Less than 4	120(74.5)	41(25.5)	0.78
High school	88(71)	36(29)		4–5	96(71.1)	39(28.9)	
University	99(81.1)	23(18.9)		More than 5	17(70.8)	7(29.2)	

Table 3. Comparing the dimensions of women's health promoting behaviors in the two groups based on self – reported health

Self–reported health / Variable	Good Mean±SD	Poor Mean±SD	P-value
Interpersonal relations	26.40±4.18	26.48±4.35	0.895
Stress management	19.92±4.02	18.65±4.61	0.021
Spiritual growth	26.33±4.76	24.44±5.55	0.004
nutrition	25.92±4.66	24.35±4.89	0.012
Physical activity	14.86±4.44	14.11±5.13	0.225
Health responsibility	23.78±5.23	23.26±5.27	0.444

Table 4. Multivariate logistic regression; the relationship between health promoting behaviors and socio–demographic variables

Predictive variable	Self–reported health		
	OR	CI-95%	p-value
Income adequacy for living expenses			
yes	-	-	-
partly	1.422	0.735–2.749	0.296
no	4.136	1.778–9.625	0.001
Stress management *	1.035	0.933–1.147	0.516
Spiritual growth *	0.926	0.872–0.985	0.04
Nutrition *	0.984	0.910–1.064	0.690

***Quantitative variables**

Discussion

In the present study, most participants (73.1%) were in the group with good self – reported health, which was consistent with the studies about the population of Tehran (25) and Malia (16). In our study, self – reported health among single and married women was not significantly different. In other studies though, health status was significantly better in married women (26, 27). The effect of marital status is different based on cultural background. Married women in Iran suffer from limitations in physical activity, poor nutrition and lack of attention to personal health because of high responsibility in carrying out housekeeping tasks (28). Results of a study by D'Souza et al. indicated that married women in Indian society first play the role of a wife, mother and take care of the family and finally think about their own health (29). Regarding education level, self – reported health increased with higher level of education; this level was higher in women with academic education and was close to significance level. A study among Swedish men and women demonstrated that self–reported health was significantly related to level of education in men, however, it was not related in women (30). In other studies, academic education was found to be an effective factor for women's health (31,32). Regarding job status, the women who were university students benefited from better self–reported health; however, there was no significant relationship between job status and self – reported health.

Results of this study are consistent with the results of previous studies conducted in Iran (33, 34). Although job is an effective factor on women's health and their job status is expected to have positive effects on their ability and thus their health, this lack of statistical difference between the health of employed women and housewives may be due to weighing of positive and negative job – related factors such as self-confidence and increased stress. Women with highly active and stressful jobs report more health problems (35). Regarding the variable of income adequacy for living expenses, self–reported health was significantly related to income adequacy for living expenses; that is, self – reported health in women with positive answer to this question was significantly better than women who gave negative answer. Other studies also showed a significant relationship between health and the property of individuals (27, 31). Low income makes people more vulnerable to stressors such as poor living conditions and the economic pressure, which make them prone to psychological problems and providing mental health services may be helpful (26). The mean score of women's health promoting behaviors was 136.64 in our study, which is similar to a study conducted in Tehran among women of reproductive age and is higher than 18 – 64 years old women in Turkey (36) and China's urban women (18).

Highest score was found in intrapersonal relation dimension and spiritual growth and the lowest score was in physical activity, which was similar to other studies (23,37). Considering the main purpose of the study based on final analysis of the data in logistic regression model, of all socio – demographic factors and health promoting behaviors, only income and spiritual growth dimension were significantly related to self – reported health. A study among Chinese women demonstrated that spiritual growth and stress management is essential for maintaining good health, which may be due to the relationship between stress and diseases such as high blood pressure, heart disease, insulin resistance and immune system disorders. Spiritual growth reflects people's ability to get things done. A study have noted the relationship between low spiritual growth and anxiety (18). A qualitative study among Iranian women showed that improving spiritual growth directly affected their health (38). Results of

this study demonstrated that spiritual growth and income level is related to self–reported health in women of reproductive health. Considering the result of the present study, health promotion policymakers should pay attention to the influence of spiritual growth on self – reported health as an important health – related index, particularly in low income societies, and design targeted interventions to increase health in people.

Acknowledgments

Hereby, we express our deepest sense of gratitude and indebtedness to Deputy of Research and Technology of Qom University of Medical Sciences for their financial support. We also would like to thank the statistical consultant of our study, Ms. Somayeh Momenian PhD, and all the women who participated in this study.

References

1.Sharma B, Nam EW, Kim D, Yoon YM, Kim Y, Kim HY. Role of gender, family, lifestyle and psychological factors in self-rated health among urban adolescents in Peru: a school-based cross-sectional survey. BMJ Open. 2016 Feb 3; 6(2):e010149.

2.Burström B, Fredlund P. Self rated health: is it as good a predictor of subsequent mortality among adults in lower as well as in higher social classes? J Epidemiol Community Health 2001;55:836–40.

3.Nielsen AB, Siersma V, Hiort LC, Drivsholm T, Kreiner S, Hollnagel H. Self-rated general health among 40-year-old Danes and its association with all-cause mortality at 10-, 20-, and 29 years' follow-up. Scand J Public Health. 2008 Jan; 36(1):3-11.

4.Heshmat R, Qorbani M, Safiri S, Eslami-Shahr Babaki A, Matin N, Motamed-Gorji N, et al. Association of passive and active smoking with self-rated health and life satisfaction in Iranian children and adolescents: the CASPIAN IV study. BMJ Open. 2017 Feb 14; 7(2):e012694. doi: 10.1136/bmjopen-2016-012694.

5.Darviri C, Artemiadis AK, Tigani X, Alexopoulos EC. Lifestyle and self-rated health: a cross-sectional study of 3,601 citizens of Athens, Greece. BMC Public Health. 2011 Aug 4; 11:619.

6.Szwarcwald CL, Damacena GN, de Souza Júnior PR, de Almeida Wda S, de Lima LT, Malta DC, et al. Determinants of self-rated health and the influence of healthy behaviors: results from the National Health Survey, 2013. Rev Bras Epidemiol. 2015 Dec; 18 Suppl 2:33-44.

7.Von dem Knesebeck O, Geyer S. Emotional support, education and self-rated health in 22 European countries. BMC Public Health. 2007 Oct 1; 7:272.

8.Pappa E, Niakas D. Assessment of health care needs and utilization in a mixed public-private system: the case of the Athens area. BMC Health Serv Res. 2006 Nov 2; 6:146.

9.van Lenthe FJ, Schrijvers CT, Droomers M, Joung IM, Louwman MJ, Mackenbach JP. Investigating explanations of socio-economic inequalities in health: the Dutch GLOBE study. Eur J Public Health. 2004 Mar; 14(1):63-70.

10.Halford C, Ekselius L, Anderzen I, Arnetz B, Svärdsudd K. Self-rated health, life-style, and psychoendocrine measures of stress in healthy adult women. Ups J Med Sci. 2010 Nov; 115(4):266-274.

11.Girón P. Determinants of self-rated health in Spain: differences by age groups for adults. Eur J Public Health. 2012 Feb; 22(1):36-40.

12.Pisinger C, Toft U, Aadahl M, Glümer C, Jørgensen T. The relationship between lifestyle and self-reported health in a general population: the Inter99 study. Prev Med. 2009 Nov; 49(5):418-423.

13.Han MA, Kim KS, Park J, Kang MG, Ryu SY. Association between levels of physical activity and poor self-rated health in Korean adults: The Third Korea National Health and Nutrition Examination Survey (KNHANES), 2005. Public Health. 2009 Oct; 123(10):665-669.

14.Li CC, Meng XH, Wang JR, Ma HJ, Chen C, Liu YQ. Association between sociodemographic, psychosocial, lifestyle factors, and self-reported health among migrant laborers in China. J Chin Med Assoc. 2017 Feb 12. pii: S1726-4901(17)30003-5. doi: 10.1016/j.jcma.2016.10.011. [Epub ahead of print].

15.Zarini GG, Vaccaro JA, Canossa Terris MA, Exebio JC, Tokayer L, Antwi J, et al. Lifestyle behaviors and self-rated health: the living for health program. J Environ Public Health. 2014; 2014:315042.

16.Chan YY, Teh CH, Lim KK, Lim KH, Yeo PS, Kee CC, et al. Lifestyle, chronic diseases and self-rated health among Malaysian adults: results from the 2011 National Health and Morbidity Survey (NHMS). BMC Public Health. 2015 Aug 6; 15:754.

17.Alverson EM, Kessler TA. Relationships between lifestyle, health behaviors, and health status outcomes for underserved adults. J Am Acad Nurse Pract. 2012 Jun; 24(6):364-74.

18.Cheng J, Wang T, Li F, Xiao Y, Bi J, Chen J, et al. Self-rated health status and subjective health complaints associated with health-promoting lifestyles among urban Chinese women: a cross-sectional study. PLoS One. 2015 Feb 11; 10(2):e0117940.

19.Statistical center of Iran.2011. Available at www.amar.org.ir/Portals/1/Iran/census-2.pdf.

20.Ahmadipour H, Kiarash G. Promoting Healthy Lifestyles for Women in Kerman, Iran: A Population-Based Study. Women's Health Bulletin. 2016; 3: e33612. (Persian).

21.Ranji, UR, Salganicoff A. Women's Health Care Chart book, Key Findings from the Kaiser Women's Health Survey. Menlo Park, CA: Kaiser Family Foundation, 2011. http://www.kff.org/womenshealth/upload/8164.pdf.

22.Walker SN, Sechrist KR, Pender NJ. The Health-Promoting Lifestyle Profile: development and psychometric characteristics. Nurs Res. 1987 Mar-Apr; 36(2):76-81.

23.Mirghafourvand M, Baheiraei A, Nedjat S, Mohammadi E, Charandabi SM, Majdzadeh R. A population-based study of health-promoting behaviors and their predictors in Iranian women of reproductive age. Health Promot Int. 2015 Sep; 30(3):586-594.

24.Baheiraei A, Bakouei F, Mohammadi E, Montazeri A, Hosseni M. The Social Determinants of Health in Association with Women's Health Status of Reproductive Age: A Population-Based Study. Iran J Public Health. 2015 Jan; 44(1):119-129.

25.Baheiraei A, Bakouei F, Bakouei S, Eskandari N, Ahmari Tehran H. Social Capital as a Determinant of Self-Rated Health in Women of Reproductive Age: A Population-Based Study. Glob J Health Sci. 2015 Jul 19; 8(2):273-280.

26.Murata C, Kondo K, Hirai H, Ichida Y, Ojima T. Association between depression and socio-economic status among community-dwelling elderly in Japan: the Aichi Gerontological Evaluation Study (AGES). Health Place. 2008 Sep; 14(3):406-414.

27.Daher AM, Ibrahim HS, Daher TM, Anbori AK. Health related quality of life among Iraqi immigrants settled in Malaysia. BMC Public Health. 2011 May 30; 11:407.

28.Azizi F, Ainy E. Women, occupation, marital status and non-communicable disease risk factors: findings from the Tehran Lipid and Glucose Study. Payesh, Journal of the Iranian Institute for Health Sciences Research. 2008; 7(1): 11-15. (Persian)

29.D'Souza MS, Karkada SN, Somayaji G. Factors associated with health-related quality of life among Indian women in mining and agriculture. Health Qual Life Outcomes. 2013 Jan 22; 11:9.

30.Molarius A, Berglund K, ErikssonC, Lambe M, Nordstro¨m E, Eriksson HG, et al. Socioeconomic conditions, lifestyle factors, and self-rated health among men and women in Sweden. European Journal of Public Health. 2006; 17(2): 125–133.

31.Hosseinpoor AR, Stewart Williams J, Amin A, Araujo de Carvalho I, Beard J, Boerma T, et al. Social determinants of self-reported health in women and men: understanding the role of gender in population health. PLoS One. 2012; 7(4):e34799.

32.Li YH, Nie XQ, Yang C, Pang J, Zhang G, Tao MX. Study on lifestyle and self-rated health among 5 kinds of occupational populations in 6 provinces in China .Zhonghua Yu Fang Yi Xue Za Zhi. 2012 Mar; 46(3):214-219.

33.Ahmad-Nia S. Women's work and health in Iran: a comparison of working and non-working mothers. Soc Sci Med . 2002; 54(5); 753–765.

34.Saravi FK, Navidian A, Rigi SN, Montazeri A. Comparing health-related quality of life of employed women and housewives: a cross sectional study from southeast Iran. BMC Womens Health. 2012 Nov 23; 12:41.

35.Slopen N, Glynn RJ, Buring JE, Lewis TT, Williams DR, Albert MA. Job strain, job insecurity, and incident cardiovascular disease in the Women's Health Study: results from a 10-year prospective study. PLoS One. 2012; 7(7):e40512.

36.Sonmezer H, Cetinkaya F, Nacar M. Healthy life-style promoting behaviour in Turkish women aged 18-64. Asian Pac J Cancer Prev. 2012; 13(4):1241-1245.
37.Wu TT, Chen IJ, Cho SL, Chiou AF. The Relationship between Health-Promoting Behaviors and Metabolic Syndrome in Community-Dwelling Older Adults. Biol Res Nurs. 2016 Oct; 18(5):549-557.
38.Baheiraei A, Bakouei F, Mohammadi E. Explaining the Effect of Cooperation and Collective Action on Women's Health. J Babol Univ Med Sci. 2016; 18(9):26-31.