Open Access Original Article



#### Crescent Journal of Medical and Biological Sciences

Vol. 7, No. 2, April 2020, 170–176 elSSN 2148-9696

# Pleasant Communication as an Integral Part of Women's Quality of Life: A Qualitative Study

Fatemeh Sadat Seyed Nematollah Roshan<sup>10</sup>, Fatemeh Alhani<sup>2\*0</sup>, Armin Zareiyan<sup>30</sup>, Anoshirvan Kazemnejad<sup>40</sup>

#### **Abstract**

**Objectives:** The communication is not just being able to verbally pronounce words and sentences, but it includes understanding information through inspiration, inner instinct, or external guidance. To achieve a better quality of life (QoL), there is a need for determining pleasant communication. The current study aimed to explore the women's perception about different aspects of communication in their life.

**Materials and Methods:** This qualitative content analysis aimed to understand the meaning of communication as a key factor in Iranian women's QoL, which was conducted on 40 women. The data were gathered through depth interviews from May to November 2016 in Tehran, Iran. The interviews were transcribed verbatim and analyzed using conventional qualitative content analysis in 8 stages recommended by Zhang.

**Results:** Two categories were identified based on the interviews, including constructive spiritual and pleasant peripheral communication and each theme consisted of some categories.

**Conclusions:** Overall, awareness about different aspects of communication in women's life must be considered by politicians and health care providers in Iran. In addition, efforts would be made to improve nurses' understanding of different aspects of the QoL, especially pleasant communication in women's life which could help their health promotion.

Keywords: Communication, Content analysis, Quality of life, Women

## Introduction

Studying the quality of life (QoL) is essential for all groups of society (1). Although men and women have identical health issues, women are faced with specific issues arising from their biological characteristics, including puberty, pregnancy, childbirth, and menopause (2). Women also encounter a variety of problems such as gender discrimination and the negligence of women's rights, domestic violence, along with desecration and honor killing (3). During the last decades, women's participation in social and political affairs has shown a remarkable rise (4). Not only do all these factors might leave significant impacts on women's health status but also on their QoL (4). It is declared that an effective communication pattern is one of the most important predictors of physical and psychological health and individuals' QoL (5). Communication is one of God's great endowments that is bestowed to mankind. God not only created speaking potential with various dialects in the human body but also taught him how to benefit from it through inspiration, his inner instinct, or external guidance (6).

For promoting the QoL in different populations, initially, there is a need for defining its components

including communication. On the other hand, individual, social, environmental, and economic factors influence the perceptions of this complex concept and thus should be identified in a variety of different societies (7). However, no data from qualitative studies are available in Iran on factors associated with this phenomenon. The qualitative studies enable us to profound the investigation of background behaviors, attitudes, and decisive perceptions of the individuals' health condition (7). Thus, it seems necessary to carry out such studies while taking into account the QoL and women's health. The awareness of the element of communication in women's life will further help us guide women to find logical and effective solutions for improving QoL.

## **Materials and Methods**

The participants were selected by the purposeful sampling technique. The inclusion criteria in this study were all Persian-speaking women in the age range of 21-49 years, excellent ability of communication and expression, along with their desire for participating in the study and expressing their life experiences.

The exclusion criteria included women with a history

Received 1 October 2018, Accepted 15 January 2019, Available online 3 February 2019

<sup>1</sup>Ph.D Student Alumnus of Department of Nursing, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran. <sup>2</sup>Department of Nursing, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran. <sup>3</sup>Department of Community Health of Nursing School of AJA University of Medical Sciences, Tehran, Iran. <sup>4</sup>Department of Biostatistics, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran.



of physical and mental illness, special psychological crisis, pregnant women according to the subjects' report at the time of the interview, the lack of consent for participation, as well as immigration and a failure to cooperate in completing the questionnaire.

Data were collected using in-depth face-to-face interviews from May to November 2016 and the interviews were conducted individually in a private and quiet room. To win the women's trust, the interview launched with a general open question, followed by asking probing questions such as "Please speak to me about your living conditions."

After data analysis, which gradually guided us to the concept of communication, the following questions were asked by considering this concept.

- "What does communication mean to you when you think about it?"
- "Are you satisfied with the communication methods in your life?"

To clarify the participants' understanding, probing questions were also asked based on the provided information, including "Do you mean ...?", "Can you explain more or give an example?" and "Please explain that situation."

Each interview lasted for approximately 45 minutes depending on the status of the women and was taperecorded as well. The sampling continued until achieving data saturation. Saturation means that no additional data are found whereby the researchers can develop the properties of the category. In other words, the researcher becomes empirically confident that a category is saturated when similar instances are obtained over and over again (8). In this study, data saturation was obtained with 38 interviews. The interview continued with two other women to ensure the lack of any new code. The obtained data were analyzed using a conventional content analysis method with 8-step Zhang approach that was applied by Mahmoodishan et al (9).

In the first stage, after a deep and unstructured interview and a semi-structured interview with women, the content of the interviews was carefully heard, handwritten, and then typed with computer software and then transferred in the software environment MAXQDA, version 10.

In the second stage, the full text of the interview was read several times word by word, and the researcher was completely familiar with the data and obtained an overview of the text. The entire interview was considered as a unit of analysis and smaller sections of the text (e.g., phrases and sentences as meaning units).

In addition, the samples of the collected data from the participants were selected and then coded by the words and phrases of the contributors and open codes were noted on the margin of the text in the third stage. With a constant comparison method, the primary codes were combined with the maximum similarity and the minimum difference in order to create primitive classes inductively

from primary raw data.

In the fourth stage, to verify the coding stability, the typed text of the interview, along with the extracted code, was given to two experts in the field of questionnaire designing and QoL in addition to the team members.

In the fifth stage, the entire text was coded based on the coding rules when achieving sufficient consistency.

Considering that human coders are subject to fatigue and are likely to make mistakes as the coding proceeds, the codes were repeatedly reviewed to achieve code stability after encoding the entire text in the sixth stage.

Based on the encoded data, specific characteristics and domains, along with inter-class relationships were identified in the seventh stage. Further, the classes were merged and compressed to reduce the number of classes during the inductive process and the final classes and inner concepts were unveiled gradually.

Finally, the process of doing qualitative research (e.g., coding) and the method of analysis were reported completely and honesty.

To increase the credibility of the data, after translating the data within the first day after the interviews, the text of the interview was provided to the participants for the verification of the extracted concepts and they were corrected if there were any coding mistakes.

To assess transferability, a couple of women was provided with a brief report of data analysis and transcriptions and was asked to confirm that the results were transferable to their own context. A maximum-variance sampling method was used to ensure data appropriateness based on age, marital status, education level, occupation and economic diversification, social status, and the like, which assisted the transferability of the results to other audiences.

Furthermore, the researcher's long-term engagement with the research subject helped to validate the findings. Moreover, a constant comparative analysis method was used for reliability (stability). Accordingly, the codes were reviewed several times in terms of similarities and differences. To ensure data conformability, inter-coder reliability was conducted through the supervisor check and the expert check was also down to check the analysis process. To confirm the dependability, the procedures were recorded and reported precisely in order to let the others follow up the study (10, 11).

#### Results

The study participants were within the range age of 21-49 with a mean age of  $37.78 \pm 4.93$  thus our sample pool was relatively young. In terms of marital status, 9 (22.5%), 3 (7.5%), 2 (5%), and 26 (65%) cases were single, divorced, widow, and married, respectively. Regarding educational status, 3 (7.5%), 12 (30%), and 25 (62.5%) cases had under diploma, a diploma, and higher education, respectively. As regards the working status, 16 (40%), 7 (17.5%), and 17 (42.5%) women were housewives, worked at home, and were employers, respectively. Totally, 590 primary

codes, 5 subcategories, and 2 categories emerged from 40 participants of the study (Table 1).

## Constructive Spiritual Communication

This theme was derived from two subthemes of spiritual relaxation and constructive self-relationship. Research findings indicated that almost all participants described internal communication with God, presence in the shrine, and internal communication with the spirit of dead relatives are important in their life. In this regard, one of the respondents stated that "Relationship with God and belief in God is just spirituality. We should feel God from the bottom of our hearts. Sometimes, I talk with God when I feel depressed. This makes me calm. I never go to the mosque but I go to the Shrine once a year. To me, the type of religion has no effect on life satisfaction" (Women No. 2).

In some of the respondents' viewpoints, focusing on daily problems, past memories, and the concern about own and their children's future can all affect satisfaction with the current life. In this respect, one of the respondents commented that "I'm always worried about what may happen to my daughter in the future. I'm afraid someone harms her. I do not know what fate awaits her. I am so concerned, even some nights I can't sleep well" (Women No. 19).

## Pleasant Peripheral Communication

This class was derived from three subclasses of pleasant social communication, barriers to communication, and satisfactory physical environment.

Nearly all women in the present research mentioned that communicating with family and friends and creating a feeling of relaxation were important for them. One of the participants declared that "Usually, my mother invites our relatives to our house once a month. We spend time together from morning till late at night. This makes me a sense of happiness and hope in life" (Women No. 17).

The experiences of the participants indicated that women not only enjoy face to face communication with friends and relatives but also benefit from virtual approaches (e.g., telephones, Viber, and Imo, and the like). Moreover, they stated that these amenities are effective in their life satisfaction. One participant expressed that "Two of my brothers went abroad after completing their military services. I sometimes miss them a lot. Of course, I try to talk to them on Viber and see each other every night. This audio and video communication relieves me and gives me a sense of peace" (Women No. 9).

### Discussion

In the present study, although the research population consisted of apparently healthy women (physically and mentally) who objectively seemed to have a good QoL, their perceptions were different and the women mainly felt no really good QoL based on their statements. Although many quantitative studies exist about communication skills

or its effect on improving life satisfaction, no qualitative study is available regarding the concept of communication in the life of healthy women. The findings of the present research categorized the most significant communication aspects in the women's QoL within the framework of two principal themes.

"Constructive spiritual communication" was the first extracted category. From participants' perspectives, it means: "a sense of relaxation from religious activities like going to mosques and shrines, reading the Qur'an, remembering God, having a spiritual connection with the soul of the dead and telepathic contact with acquaintances in other locations, and making constructive selfrelationship through not thinking about the current, past, and future problems.

During the past decade, some quantitative studies have focused on the relationship between spirituality, physical and mental health, and the QoL. Some examples of research in this area among clinical and nonclinical populations include increasing the QoL due to spiritual coping in patients with cardiovascular diseases (12), as well as evaluating the significant effects of spirituality and religiosity on depression and the QoL of older people (13), the negative relationship between religious beliefs and the risk of suicide in abused women (14), the positive relationship between religious beliefs and the QoL of medical students (15), and the negative correlation between spirituality and depression (16). In this study, most participants considered spirituality as an important factor in their life. According to the priority of religious teachings in our Islamic society, it is not unexpected that women of our community consider spiritual communication as an element in their life satisfaction. The results of the study by Naveed and Suhaib showed that women consider spiritual leaders and religious books as the main informational sources in meeting their religious informational needs and feel satisfied with their free access to religious activities and access to information that is needed for developing their spiritual levels. Additionally, they believed that these factors not only could influence their inner harmony and peace of mind but also on their QoL (17), which is consistent with the findings of the recent study.

Almost all participants in the present research had obsessions about their past, present, and future life. Some of them discomforted with past memories and some others continuously thought about current difficulties or were worried about their own future or their children's lives. These conditions may gradually affect their mental health status and even their physical health. Most of the participants tended to have pessimistic thoughts due to experiencing difficult conditions in their childhood. Cheuk Yan and Wong indicated that individuals who have pessimistic tendencies tend to have a significant amount of stress and these conditions can eventually lead to physical illness, as well as emotional and mental

**Table 1.** The Trend of Condensation-abstraction Process for the Themes (Sample)

Main Theme	Themes	Sub-themes	Open Coding	Meaning Units
Pleasant communication	Constructive spiritual communication	Spiritual relaxation	Obedience	Having weekly Quran session program every week with friends (p6) Feeling lightness after going to pilgrimage (p1,p6, & p18)
			Remembrance of God	Feeling calm through praying and having dialogue with God (p1, p2, p4, p6, p10, & p18) Having no connection with God due to difficult conditions in life (p3) Believing in the Divine test (p36)
			Spiritual communication with relatives	Having a feeling if happiness by visiting the relatives in the dream (p17, p15) Having a telepathy with people in another area (p37, p36) Feeling relaxed after visiting the tomb of deceased relatives (p9, p15, p17)
		Constructive self-relationship	Annoying current problems	Thinking about self-life problems (p3) Worrying about the children's life conditions (p1, p3, p6, p19)
			Thinking about the past and future	Becoming nerves by remembering past memories (p1, p9, p10) Experiencing sleeplessness due to thinking about past memories (p1) Concerning about future the conditions of children's lives (p1, p3, p6, p12)
	Pleasant peripheral Communication	Pleasant social communication	Overcome feelings of loneliness	Eliminating a sense of loneliness by talking with family (p3, p6, p10, p16, p28)  Feeling sad because of the lack of a family due to death, travelling, or interruption (p9, p10, p13)  Enjoying taking part in family parties (p16, p28)
			Consult with family	Becoming relaxed after expressing their feelings to relatives (p2,p18, p23, p25, p35) Feeling helpless in solving problems (p25) Consulting with relatives about work and housing purchases (p6, p26)
			Pleasure of virtual communication	Being entertained with virtual networks (p28, p29, p30) Experiencing pleasure of video calling with family (p9,p10) Having a feeling of satisfaction with telephoning to the family and friends (p3,p6, p8,p10,p13, p28, p36)
		Barriers to communication	Impact of others behavior	Encountering other excessive expectations (p1, p3, p9) Experiencing indecent and unpleasant behaviors of people (p1, p9, p10, p13, p30) Feeling neglected due to the lack of feedback from others (p1, p3) Showing unwillingness to communicate with the opposite sex due to being sexually abuse (p12, p14)
			Opportunities for communication	Having no connection with intimate friends due to the lack of time (p7, p9, p10, p11, p12)  Not having contact with relatives due to fatigue caused by the work (p4, p9, p10, p13, p27)  Having a desire for getting a long vacation to visit a close family (p8)
			Money-driven communications	Experiencing the effect of money on family and friends behavior (p1, p2, p3, p6, p13) Inviting some guests and spending time with them (p1, p6, p36)
		Satisfactory physical environment	Feeling relaxed by nature	Having a sense of relaxation in relation to flower and plant (p18, p36) Being satisfied with the existence of a dedicated park for women (p35, p36)
			Living in pleasant climate	Showing dissatisfaction with heavy traffic smoke and noise (p7, p18,p27) Having the dream of living in healthy weather (p5, p6, p18) Experiencing a sense of relaxation from the shower of warm water (p7, p18) Not tolerating hot air (p3) Being concerned about parasite waves for the satellites (p7,p18)

exhaustion (18). In addition, the results of the research carried out by Partovinia and Ashouri demonstrated that there is a significant relationship between the positive thinking education and the mean of the QoL of women in experimental and control groups (19). Although the above-mentioned studies are of quantitative type, their results are in line with the findings of the present research on the importance of spiritual aspects in women's lives.

"Pleasant peripheral communication" was the second

extracted category in the present research. According to women's viewpoints, it implies pleasant social communication, barriers to communication, and a satisfactory physical environment.

Further, pleasant social communication based on womens' experiences means overcoming the sense of loneliness, consultation with family, and getting pleasure with virtual communication. The need for counselling, along with having a dialogue with family members and a

feeling of empathy in relation to family members was also reflected in participants' statements. The women believed that having a good relationship with the children, husband, and other relatives can eliminate their loneliness, facilitate problem forgetting, and increase their sense of peace. Studies by Zarei et al and Pekel et al also indicated that an open conversation has a positive correlation with QoL while rigid behaviors have an inverse correlation with life satisfaction (20,21)

Based on the findings, face to face conversations and group meetings were valuable for most participants in the current study. On the other hand, some others stated that a virtual conversation through the mass media is a factor in satisfaction in their life. They further considered that amenities such as telephone, Viber, WhatsApp, and Telegram are inexpensive and easy ways to communicate with family and friends who are geographically distant from them. Moreover, some others used these facilities as a hobby and for reducing loneliness.

The result of the study by Goodman-Deane et al revealed that richer communication methods include face-to-face communication, and phone and video calling have meaningful relationships with a general satisfaction of life. Conversely, more limited methods such as text messages have a negative and significant relationship with satisfaction of life (22). Nonetheless, some participants of the present study expressed that virtual networks are the obstacles to closely communicate with their family because they may get used to use these kinds of virtual networks and gradually become reluctant to visit their relatives. In another study, Szczegielniak et al reported that addiction to virtual networks could lead to unfriendly and cold interpersonal relationships (23), which is consistent with the findings of this study.

Barriers to communication from the viewpoints of women in this study included the impact of the others' behaviors, opportunities for communication, and moneydriven communications. From the perspectives of the participants, the relationship is influenced by their mood, mental imagination, and the inappropriate tone of the other voice, as well as rude and unfriendly behavior and listen to their unfavorable talk closely. Additionally, the lack of trust in another person was considered as a factor affecting communication by some others. Some participants of the present study pointed that the lack of leisure time, along with the presence of financial difficulties and party costs are main factors involved in reducing the communication. Baghban et al found that the presence of financial difficulties and the necessity of women's employment and the lack of enough leisure times reduce the positive interaction between family members and lead to family conflicts (24), which corroborates with the findings of the present study.

Satisfactory physical environment through feeling relaxed by nature and living in a pleasant climate was another sub-theme in this study. According to most

respondents, Tehran was considered as a highly polluted city. They were dissatisfied with weather conditions and noted that their health was in danger. Therefore, planning for improving this situation by city planners who are responsible for managing the living environment is essential. Stock and Clemens also declared that pollution is a negative factor that affects women's lives. They further acclaimed that even small particle pollution exposure in pregnancy can lead to pregnancy complications and fetal growth, as well as preterm birth, stillbirth, and respiratory morbidity in children (25).

Although this study applied a quantitative approach, its result is consistent with the findings of the current study. Moreover, some women expressed their concerns about closing children's kindergartens or schools during polluted air days while they have to be present in the workplace. Therefore, the authorities need to take appropriate measures to shut down the workplaces during pollution days or at least exempt the mothers from working on these critical days. Some participants, particularly the religiously veiled women, felt satisfied with the existence of exclusive parks for women, where they could attend without worrying about the presence of strange men and felt relieved in green space with fragrant flowers and plants. Regrettably, there is not pristine green space in some deprived areas in Tehran. As a result, it is not possible for all people to benefit from a connection with nature. Feeling relaxed by nature by study participants emphasized that natural landscapes can meet humans' biological needs and directly affect their health. Ambrey and Fleming demonstrated that landscapes are effective in reducing the stress of city dwellers. Furthermore, they mentioned that frequent visits to greenspace generate significant improvements in the well-being and have a positive influence on self-reported life satisfaction (26). This was also considered to be of great importance to women in the present study. Therefore, not only do create green spaces in the city can enhance visual attractiveness but also could affect reducing air pollution and preventing diseases.

## Limitations of the Study

One of the limitations of this study is that its results cannot be generalized to the general population due to the nature of qualitative research. However, to the best of our knowledge, this is the first study in this field that was conducted by adopting a qualitative research method in order to explore the concept of communication in women's life and its different aspects.

Thus, an extensive study is recommended with larger samples in a homologous culture and the other provinces of Iran in order to discover other dimensions that are related to women's QoL.

In addition, future studies are recommended to construct a native tool in order to assess the QoL of women based on the obtained data from qualitative research. Therefore,

we will be able to take a major step towards improving the QoL and health of Iranian women and the entire society.

### **Conclusions**

In general, the present study explored various designs of communication in women's QoL. In this study, women expressed different experiences, some of which were emphasized and noted in similar studies as well. Constructive spiritual and pleasant peripheral communication were considered as the integral components of women's QoL.

#### **Conflict of Interests**

The authors declare that they have no conflict of interests.

#### **Ethical Issues**

This study, as part of the Ph.D. nursing thesis, was approved by ethical review boards at the authors' institution (the ethical code of D52/1918/ Date 5.6.2016). Furthermore, the ethical principles of the research were considered, including obtaining informed consent, ensuring namelessness and information confidentiality, and finally, having the freedom to discontinue the study.

## **Financial Support**

This study was financially supported by the Research Administration of Tarbiat Modares University, Tehran, Iran

## Acknowledgments

This study was financially supported by the Research Administration of Tarbiat Modares University, Tehran, Iran. We would like to gratefully thank all women in the study for sharing their experiences.

## References

- Basharpoor S, Sheykholeslami A. The relation of marital adjustment and family functions with quality of life in women. Eur J Psychol. 2015;11(3):432-441. doi:10.5964/ ejop.v11i3.859
- 2. Thomas KE, Chitra N. Periodontal changes pertaining to women from puberty to postmenopausal stage. Int J Pharma Bio Sci. 2013;4(2):B766-B771.
- 3. Shabila NP, Al-Hadithi TS. Women's health and status in the Kurdistan region of Iraq: a review. Crescent J Med Biol Sci. 2018;5(2):70-75.
- Ghasemi E, Mohammad Aliha J, Bastani F, Haghani H, Samiei N. Quality of life in women with coronary artery disease. Iran Red Crescent Med J. 2014;16(7):e10188. doi:10.5812/ircmj.10188
- Mojtahedi M, Ashoori J. The role of personality traits and family communication patterns in prediction of quality of life among nurses of Shahid Mofatteh and 15 Khordad hospitals in Varamin city, 2015. Pajouhan Scientific Journal. 2016;14(3):20-29. doi:10.21859/psj-140320. [Persian].
- 6. Bambaeeroo F, Shokrpour N. The impact of the teachers'

- non-verbal communication on success in teaching. J Adv Med Educ Prof. 2017;5(2):51-59.
- 7. Rostami S, Parsa-Yekta Z, Najafi-Ghezeljeh T, Vanaki Z, Zarea K. Self-perception in Iranian adolescents with diabetes: a qualitative study. J Diabetes Metab Disord. 2015;14:36. doi:10.1186/s40200-015-0163-0
- 8. Saunders B, Sim J, Kingstone T, et al. Saturation in qualitative research: exploring its conceptualization and operationalization. Qual Quant. 2018;52(4):1893-1907. doi:10.1007/s11135-017-0574-8
- Mahmoodishan G, Alhani F, Ahmadi F, Kazemnejad A. Iranian nurses' perception of spirituality and spiritual care: a qualitative content analysis study. J Med Ethics Hist Med. 2010:3:6.
- Abbaszadeh A, Eskandari M, Borhani F. Changing the care process: a new concept in Iranian rural health care. Asian Nurs Res (Korean Soc Nurs Sci). 2013;7(1):38-43. doi:10.1016/j.anr.2013.01.004
- Seidi J, Alhani F, Salsali M. Nurses' clinical judgment development: a qualitative research in Iran. Iran Red Crescent Med J. 2015;17(9):e20596. doi:10.5812/ ircmj.20596
- Trevino KM, McConnell TR. Religiosity and religious coping in patients with cardiovascular disease: change over time and associations with illness adjustment. J Relig Health. 2014;53(6):1907-1917. doi:10.1007/s10943-014-9897-0
- 13. Moon YS, Kim DH. Association between religiosity/ spirituality and quality of life or depression among livingalone elderly in a South Korean city. Asia Pac Psychiatry. 2013;5(4):293-300. doi:10.1111/appy.12025
- 14. Güngörmüş Z, Tanrıverdi D, Gündoğan T. The effect of religious belief on the mental health status and suicide probability of women exposed to violence. J Relig Health. 2015;54(5):1573-1583. doi:10.1007/s10943-014-9877-4
- Krägeloh CU, Henning MA, Billington R, Hawken SJ. The relationship between quality of life and spirituality, religiousness, and personal beliefs of medical students. Acad Psychiatry. 2015;39(1):85-89. doi:10.1007/s40596-014-0158-z
- 16. Finocchiaro DN, Roth PA, Connelly CD. Spiritual wellbeing as predictor of quality of life for adults with paraplegia. Rehabil Nurs. 2014;39(6):285-293. doi:10.1002/rnj.161
- 17. Naveed MA, Suhaib A. Empowering women with information: an investigation of rural desert women's information behaviour in Pakistan. Inf Dev. 2019;35(4):601-611. doi:10.1177/0266666918777880
- Cheuk Yan S, Wong WS. The effect of optimism on depression: the mediating and moderating role of insomnia. J Health Psychol. 2011;16(8):1251-1258. doi:10.1177/1359105311407366
- 19. Partovinia R, Ashouri A. Effectiveness of teaching the positive thinking on the quality of life of married old women. Int J Humanit Cult Stud. 2016;1(1):1548-58.
- 20. Zarei E, Fallahchai SR, Vahedi Sarrigani N. The study of relationship between family communications patterns with resilience and quality of life the high school girl's students. J Life Sci. 2013;3(4):289-293.
- 21. Pekel A, Turan MB, Pepe O, Bahadir Z. The relationship with life satisfaction between health promoting behaviours

- of special education teachers (Kayseri city sample). Int J Sci Cult Sport. 2015;3(3):125-132. doi:10.14486/IJSCS268
- 22. Goodman-Deane J, Mieczakowski A, Johnson D, Goldhaber T, Clarkson PJ. The impact of communication technologies on life and relationship satisfaction. Comput Human Behav. 2016;57:219-229. doi:10.1016/j.chb.2015.11.053
- 23. Szczegielniak A, Pałka J, Krysta K. Problems associated with the use of social networks: a pilot study. Psychiatr Danub. 2013;25 Suppl 2:212-215.
- 24. Baghban I, Malekiha M, Fatehizadeh M. The relationship
- between work-family conflict and the level of self-efficacy in female nurses in Alzahra hospital. Iran J Nurs Midwifery Res. 2010;15(4):190-194.
- 25. Stock SJ, Clemens T. Traffic pollution is linked to poor pregnancy outcomes. BMJ. 2017;359:j5511. doi:10.1136/
- 26. Ambrey C, Fleming C. Public greenspace and life satisfaction in urban Australia. Urban Stud. 2014;51(6):1290-1321. doi:10.1177/0042098013494417

Copyright © 2020 The Author(s); This is an open-access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.