Original Article / Araştırma Makalesi

DETERMINING THE EFFECT OF THE PUBLIC HEALTH NURSING PRACTICES ON IMMIGRANT WOMEN'S QUALITY OF LIFE AND HEALTHY LIFESTYLE **BEHAVIORS**

Halk Sağlığı Hemşireliği Uygulamalarının Göçmen Kadının Yaşam Kalitesi ve Sağlıklı Yaşam Biçimi Davranışlarına Etkisinin Belirlenmesi

Zübeyde KORKMAZ³ Merve YILMAZ⁴ ^{1,3}Nuh Haci Yazgan University, Department of Nursing, Kayseri, Turkey ²Aksaray University, Vocational School of Health Services, Aksaray, Turkey ⁴Gazi University, Medical Faculty Hospitals Emergency Services, Ankara, Turkey

Geliş Tarihi / Received: 18.06.2020

Kabul Tarihi / Accepted: 27.10.2020

Yayım Tarihi / Published: 30.11.2020

ABSTRACT

Immigrant health has been one of the most important health problems in recent years. Therefore, immigrant health should be supported by primary health care. The objective of this study is to be able to understand the power of the nurses working in primary health care services in protection and development of immigrant women's health. Research sample included 24 immigrant women. The practice lasted for 3 months. The research teams have visited the homes of the women once a week. Total score average of the women was found as 95.45±15.31 before performing the Healthy Lifestyle Behavior Scale (HLBS). After performing the HLBS the total score was found as 115.88±18.19. The score average after HLBS was found statistically significant and higher when compared to the before (p<0.00). Significant positive development was also observed in the mental and physical aspects, which are components of the quality of life of women. Consequently, the health training given and interventions performed by home visits affected to healthy lifestyle behavior and life quality in a positive way.

Keywords: Healthy Life Style, Home Visit, Immigrant Women, Public Health Nursing, Quality Of Life

ÖZ

Göçmen sağlığı, son yıllardaki en önemli sağlık sorunlarından biri olmuştur. Bu nedenle, göçmen sağlığı birinci basamak sağlık hizmetleri ile desteklenmelidir. Bu çalışmanın amacı, birinci basamak sağlık hizmetlerinde çalışan hemşirelerin, göçmen kadınların sağlığının korunması ve geliştirilmesindeki gücünü anlamaktır. Araştırma örneklemi 24 göçmen kadını içerdi. Uygulama 3 ay sürdü. Araştırma ekibi, kadınların evlerini haftada bir kez ziyaret etmiştir. Kadınların, Sağlıklı Yaşam Biçimi Davranışları Ölçeği (SYBDÖ) uygulaması öncesi toplam puan ortalamaları 95.45±15.31 olarak bulundu. Uygulama sonrası SYBDÖ toplam puanı 115.88±18.19 olarak bulundu. HLBS sonrası puan ortalaması, öncesi ile karşılaştırılınca, istatistiksel açıdan önemli ve daha yüksek bulundu (p<0.00). Kadınların yaşam kalitesinin bileşenleri olan zihinsel ve bedensel yönlerde de önemli olumlu gelişme gözlendi. Sonuç olarak, ev ziyaretleri ile verilen sağlık eğitimi ve yapılan müdahaleler, sağlıklı yaşam tarzı davranışını ve yaşam kalitesini olumlu yönde etkiledi.

Anahtar kelimeler: Ev Ziyareti, Göçmen Kadın, Halk Sağlığı Hemşireliği, Sağlıklı Yaşam Biçimi, Yaşam Kalitesi

INTRODUCTION

Chronic diseases, which are accepted as the most important public health problem in the world, are the leading causes of deaths that have increased rapidly in Turkey day by day. The most important risk factor of chronic diseases is individuals' lifestyles. Individuals' lifestyles and life conditions affect both their quality of life and life expectancy at birth. According to the World Health Organization data, maximum 80% and minimum 40% of the deaths are caused by the diseases that emerge depending on lifestyle. Today, it is quite remarkable that contagious diseases have decreased and chronic diseases have increased depending on the changes in lifestyle. Despite the increase in chronic diseases, it is possible to be protected from many diseases. Changing lifestyle is adopted as the most important way to be protected from diseases and for health improvement (Esin, 1999; Karadeniz, Uçum, Dedeli, & Karaağaç, 2008).

Healthy lifestyle is defined as individuals'; controlling all behaviors affecting their health positively or negatively, choosing the healthy behaviors appropriate for themselves and also taking their own responsibility of their health. Health improving behaviors involve the behaviors increasing the well-being state of individuals. Healthy lifestyle behaviors include adequate and regular exercises, balanced nutrition, substance non-use, one's taking the responsibility of his own health, stress management and hygienic measures (Stanhope & Lancester, 1996). In other words, healthy lifestyle involves the protection from the preventable diseases that are common in the society and that cause death and disability most, and avoidance of certain risk behaviors which are known to prolong healthy lifespan (Onat, 2004; Onat, 2012). When individuals adopt health improvement behaviors, they protect themselves from many diseases. There are many studies on lifestyles. For instance, in an extensive study conducted in the US, lifestyle has been found to decrease the risk of diabetes at the rate of 58% (Diabetes Prevention Program Research Group, 2002; Schwartz et al., 2018). According to the Framingham study, obesity increases the risk of cardiovascular disease development 1,5 times (Wilson, D'Agostino, Sullivan, Parise, & Kannel, 2002). Obesity is a state that can be prevented by adequate and balanced nutrition and regular exercises. In the study of Turkey Chronic Diseases and Risk Factors Frequency-2013, 22% of the male individuals between the ages of 15-24 and 19,9% of the women are evaluated as overweight. In the study by Vançelik et al. and Yıldız et al., obesity frequency of men was found higher when compared to women. Researchers, conducted by scanning large masses of people, report that lifestyle causes various chronic diseases (Vançelik, Önal, & Güraksın, 2006; Yıldız, Tarakçı, & Karantay Mutluay, 2015).

One of the most important outcomes of achieving a healthy lifestyle behavior is to improve the quality of life. However, poverty can be seen as the most important obstacle for both healthy lifestyle and quality of life. There may be many reasons for poverty. One of the reasons of poverty in cities is migration. It is a very important problem that the desire to find a job, which is thought to cause migration, is not adequately met in cities after migration. Among the reasons for this inadequacy, especially the lack of necessary information of immigrants can be counted first. Immigrant women who are increasingly impoverished and struggles with gender perception, is the most risky group in terms of healthy lifestyle and quality of life (Kaya Erten & Zincir, 2018; Yıldız & Alaeddinoğlu, 2011).

Nursing is one of the key occupational groups in gaining a healthy lifestyle. Especially nurses working for primary healthcare services work face to face with the individuals who are healthy but having risks. Poverty is the factor affecting lifestyle in the most negative way in terms of health. Nurses' working with poor individuals and families is an important factor for decreasing their risks. Nurses are defined by the International Council of Nurses as the healthcare professionals that can best define poverty and its effects, best defend the rights of poor people and find the best practical solutions to remove the poverty (Koçoğlu & Akın, 2009).

In the Project planned in this context, the public health nursing practices' effect on the low economic level immigrated women's development of a healthy lifestyle and their quality of life have been investigated.

METHODS

The purpose of the study is to determine the effect of the public health nursing practices, which aim health protection behaviors and are performed for the low economic level society, on the development of healthy lifestyle and quality of life.

At this point, it is objected;

- To perform the health screenings of the immigrant women
- To determine the health risks
- To perform the nursing interventions related to the determined health risks, and finally
- To gain the immigrant women healthy lifestyle
- As a result, it was aimed to improve the quality of life of immigrant women

The research has been conducted by Pretest-Posttest Design in one group (Erdoğan, Nahcivan, & Esin, 2015).

The Question of the Research

What is the level of the effect of public health nursing interventions, for the women living in a region with a low economic level, on the healthy lifestyle and quality of life?

The Place Where the Research is Conducted

The research has been conducted in Boztepe quarter of Kocasinan Municipality, Kayseri, which has a low social economic level. 3500 families live in Boztepe quarter. Most of the families have immigrated to Kayseri from Eastern and Southeastern Anatolia Region. They have been living here for 25 years averagely. They can understand and speak Turkish fluently. There is not a primary care clinic in the quarter within walking distance, and the residents get to the nearest primary care clinic by public transport. In the quarter, there is a facility of Kocasinan Municipality for common-public education and a vocational training unit of the Metropolitan Municipality. According to the information obtained from the Primary Care Clinic, residents go to the primary care clinic when they are sick, but they do not apply the clinic for the purpose of protection from diseases at all. This quarter has been determined as training research region under the protocol signed between Nuh Naci Yazgan University, Faculty of Health Sciences and the Municipality.

The Sample of the Study

The sample of the research included 34 women, but during the process some of them were excluded from the study for various reasons (1 woman moved, 5 women did not want to continue to participate, 4 women provided incompleted information) (moving, not accepting the nurse, missing form, etc.). The research was completed with 24 women. Home visits were performed within working hours. A senior student of nursing who had taken public health nursing class was assigned to each woman. The home visit performed by each student was at least once controlled by a lecturer who was an expert in the field of Public Health Nursing.

Inclusion Criteria

- Coming to Kayseri by domestic migration
- Speaking Turkish fluently
- Being voluntary to participate in the research
- Living in Kayseri at least for 10 years

Exclusion Criteria

- Moving during the research
- Being visited less than 6 times

- Providing incomleted information in the research forms
- Quitting the study in the advanced phase

Data Collection Tools

To collect the data, Family Identification Form, "Healthy Lifestyle Behavior Scale", which evaluates the health improvement activities of the women and Short Form-36 (SF 36), which evaluate the quality of life, were used.

Family Identification Form

The form has been prepared by the researchers to evaluate the health problems of the families. It includes questions that evaluate the environmental and individual characteristics of the family members and enable to identify the functional health patterns.

SF 36 Quality of Life Scale

SF 36 is one of the most common scales used to measure the quality of life. It was developed by Ware and Sherbourne, and its validity and reliability study was carried out by Koçyiğit et al. The scale is short and easy to perform, and also has a wide range of use. SF-36 evaluates both positive and negative aspects of health state. It is impossible to obtain a total score for SF-36 quality of life scale (Ware & Sherbourne, 1992; Koçyiğit, Aydemir, Ölmez, & Memiş, 1999). Instead, the SF-36 scale provides summary scores for the physical and mental components of health. The physical components are the sub-scales of physical functioning, physical role, pain and general health perception, and the mental health components are the sub-scales of vitality, social functioning, emotional role and mental health. "0" is the minimum and "100" is the maximum score in summary scores, and the highest score indicates the good health status. Cronbach alpha reliability values were found in the range of 0.73-0.76 for each sub-scale in Turkish validity and reliability study (Koçoğlu & Akın, 2009). In this study, Cronbach alpha value was found in the range of 0.70-0.89 in the pretest and 0.72-0.87 in the posttest.

Healthy Lifestyle Behaviors Scale

The scale was developed by Walker et al., in order to test the health improvement model (Walker, Sechrist, & Pender, 1987). The validity and reliability study of the scale in Turkey was carried out by Esin and the adopted scale includes 48 items. It measures individuals' behaviors related to healthy life style, and has 6 sub-scales (Esin, 1999). The sub-scales are; self-actualization, health responsibility, exercise, nutrition, interpersonal support and stress

management. Each subgroup can be used alone independently. The total score of the scale states the healthy lifestyle behaviors score.

The Sub-Group of Self-Actualization: It states the individuals' life purposes, the ability of self-improvement individualistically and how much they know and please themselves.

The Sub-Group of Health Responsibility: It states the level of taking the responsibility of individuals on their own health and how much they contribute their health.

The Sub-Group of Exercise: It reveals how much the individuals perform exercises that are the constant element of a healthy life.

The Sub-Group of Nutrition: It determines individuals' meal selection and arrangement and the changes in their food selection.

The Sub-Group of Interpersonal Support: It states individuals' communication with their immediate circle and its continuity level.

Stress Management: It determines individuals' level of recognizing stress sources and their stress control mechanisms (Esin, 1999). In the pretest of this study, Cronbach alpha value was found as 0,897 and in the posttest as 0,894.

At the Home Visit;

The woman was met and pretests were performed at the first home visit. In the later visits, the nursing student determined the health risks of the family and s/he established nursing diagnoses for these risks under the guidance of his/her advisor. Every week the family was given health training and health care related to the determined risk or existing problems. The advisor attended to a visit of each family. At the last visit, the posttest was performed.

The Variables of the Research

Independent Variables: Demographic characteristics, public health nursing practice via home visits.

Dependent Variable: Healthy Lifestyle Behavior Score and the Quality of Life Score

Evaluating the Data

The data obtained from the research were evaluated on SPSS statistical software by the researchers. Number-percentage calculations, t-test, one-way analysis of variance, Kruskal-Wallis and Mann-Whitney-U tests were used to evaluate the data.

Ethical Consideration

The authors declare that they have no conflict of interests. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee, and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. Ethical permission was obtained from Nuh Naci Yazgan University Social Sciences Ethics Committee.

FINDINGS

Table 1. The Distribution of the Demographic Characteristics of the Women

Defining Characteristic	Number	Percentage
Age		
25-29	1	4,2
30-34	-	-
35-39	2	8,3
40-44	4	16,7
45-49	3	12,5
50-54	2	8,3
55-59	2	8,3
60 and above	10	41,7
Education Status		
Illiterate	14	58,3
Literate	3	12,5
Primary School Graduate	7	29,2
Occupation		
Housewife	24	100
Social Security		
Yes	24	100
Chronic Disease		
Yes	17	70,8
No	7	29,2
Family Type		
Nuclear	10	41,7
Extended	14	58,3

The average age of the women in the research is $52.6 \pm 1.81.58.3\%$ of them are illiterate, all of them are housewives, and all have social security. 70,8% of the women have chronic diseases, and 58.3% live in an extended family (Table 1).

Table 2. The Distributions of the Total and Subscores of Healthy Lifestyle Behaviors of the Women in the Family Before and After the Intervention

Healthy I	Lifestyle Behavio	rs Score					
	Self-	Health	Exercise	Nutrition	Interpersonal	Stress	Total HLB
	Actualization	Responsibility			Support	Management	Score
	$\overline{X} \pm (SS)$	$\overline{X} \pm (SS)$	\overline{X} ±	$\overline{X} \pm (SS)$	$\overline{X} \pm (SS)$	$\overline{X} \pm (SS)$	$\overline{X} \pm (SS)$
			(SS)				
Pretest	27,33±5,73	$17,87 \pm 3,02$	5,87±1,29	$14,00\pm3,05$	$17,25\pm4,29$	13,12±2,96	95,45±15,31
Posttest	34,75±6,37	$21,70\pm 5,25$	$7,29\pm3,01$	15,66±3,63	20,29±3,19	16,16±4,16	115,88±18,19

Test Statistics	-4,236	-3,097	-2,115	-1,722	-2,783	-2,913	-4,206	
D	0,000	0,003	0,040	0,092	0,008	0,006	0,000	

Before the performance, the Healthy Lifestyle Behaviors Scale (HLBS) total score average of the women was found as 95.45 ± 15.31 . After HLBS, total score was 115.88 ± 18.19 . The posttest score average was found higher and statistically significant when compared to the pretest score average (p<0.00). When the subscale scores were examined, the scores were found as; self-actualization pretest score $27,33\pm5,73$ and posttest score $34,75\pm6,37$, health responsibility pretest score $17,87\pm3,02$ and posttest score $21,70\pm5,25$, exercise pretest score $5,87\pm1,29$ and posttest score $7,29\pm3,01$, interpersonal support pretest score $17,25\pm4,29$ and posttest score $20,29\pm3,19$, and stress management pretest score $13,12\pm2,96$ and posttest score $16,16\pm4,16$ (p<0,05). Of the women who were provided care via home visits, nutrition subscale pretest score was found as $14,00\pm3,05$ while the posttest score was $15,66\pm3,63$, and no statistically significant difference was found (p>0.05) (Table 2).

Table 3. The Distributions of the Pretest and Posttest Scores of Quality of Life of the Woman in the Family

Quality of Life Score							
	Physical Components			Mental Comp			
	$\overline{X} \pm (SS)$	Min	Max	\overline{X} ± (SS)	Min	Max	
Pretest	45,12±5,21	36,00	55,00	39,66±6,99	29,00	55,00	
Posttest	49,25±4,19	42,00	60,00	45,87±5,92	31,00	56,00	
Test Statistics	11,013			9,127			
P	0.002			0,004			

When the sub-scale scores of the quality of life of the women were compared, posttest scores were found significantly higher both in physical and mental aspects (p<0.05), (Table 3).

DISCUSSION

Migration is a very important factor affecting the change and adaptation of individuals' and their families' to environment (Akan & Arlan, 2008; Lecaj, 2019; Yalçın, 2004). The education level and health status of women in migrating families can be affected more negatively, when compared to those that have not migrated. Since the surveyed region has received particularly internal migration, women's levels of education are found to be lower than throughout Turkey. The average age of the women is $52,16\pm1,81$. Advanced age is a risk for chronic diseases. In the study, 70% of the women have chronic diseases. The rate of the individuals having at least one chronic disease determined in the studies that have been conducted in Turkey (on chronic diseases) is similar to this study (Healthy aging and chronic illnesses project, 2012). The women in the study live in a very extended family. Being a part of

Turkish culture, this situation also results from the desire of the migrated families to live together with security and economic reasons (Kuruüzüm, 2002; Özkul, 2019).

Health improvement is defined as the process of individuals' increasing their controls on their own health and improving their health. It is necessary for individuals to change their life styles and adopt healthy lifestyle behaviors in order to improve their health (Güler G., Güler N., Kocataş, Yıldırım, & Akgül, 2008; Özkan & Yılmaz, 2008). Nurses working at primary care clinics are in the key position to develop a healthy lifestyle. Nurses handle individuals together with their circle to develop a healthy lifestyle. They struggle for removing negative factors in the physical, biological, social, cultural, economic and psychological environment that play role in arising diseases and for creating a positive environment. They explore patients at an early stage within the bounds of possibility and refer them to physicians. While doing this, it is quite important to pay home visits and evaluate individuals at their homes. Especially when the health belief model bases on, it is considered that the healthcare given by evaluating the attitudes or beliefs of individuals related to their problems is important to solve the problems (Demir, Biçer, Büyüksor, & Özen, 2016; Hjelm, Bard, Nyberg, & Apelqvist, 2003). Home visits are a significant way to know individuals better and to evaluate their beliefs and attitudes. In this study, senior students of nursing performing Public Health Nursing course practice visited the women at their homes, screened their general health, determined health risks, performed nursing interventions related to the determined health risks, and finally they tried to gain them healthy lifestyle behaviors. As a result of the study, the total score average of the women before HLBS was found as 95.45±15.31. Total score after HLBS was 115.88± 18.19 (p<0.00). When the sub score fields were examined, self-actualization pretest score was found as 27,33±5,73 and posttest score as 34,75±6,37; health responsibility pretest score as 17,87±3,02 and posttest score as 21,70±5,25; exercise pretest score as 5,87±1,29 and posttest score as 7,29±3,01; interpersonal support pretest score as 17,25±4,29 and posttest score as 20,29±3,19, and stress management pretest score as 13,12± 2,96 and posttest score as 16,16±4,16 (p<0,05). Nutrition sub-scale pretest score of the women who were provided care via home visits was found as $14,00\pm3,05$ and the posttest score as $15,66\pm3,63$, and no statistically significant difference was found (p>0.05).

When these results are examined, it can be considered that healthcare given by nurses working at primary care clinics via home visits positively affects women's healthy lifestyle behaviors. In addition, healthy lifestyle behavior scores of the women are lower both at total score and subscores when compared with the research results of different groups (Demir et al., 2016; Yalçınkaya, Özer & Yavuz Kahramanoğlu, 2007; Yılmazel & Büyükkayacı Duman,

2016). The reason of the result to be lower than the different groups' is that, both this group has migrated and the surveyed region has a low social-economic level. In a study conducted by Kaya, Erten and Seviğ the self-esteem levels of the immigrating and non-immigrating children living in a society having low social economic level were investigated, and the self-esteem level of the immigrating children was found lower (Kaya Erten & Seviğ, 2018). While immigration is one of the most important factors that put the health of individuals at risk, the addition of poverty to the phenomenon of immigration deepens the problems at the health level. In the study, the fact that the scale score is lower than the other studies can be explained by that the poverty and immigration phenomenon come together.

When Table III is examined, it is seen that women's subscores of the physical and mental components of the quality of life after home visits increase statistically significantly when compared to the pre-scores. In a study conducted by Koçoğlu and, the effect of the class inequality on the quality of life was investigated, and classes having low and high social economic levels were compared (Koçoğlu & Akın, 2009). The quality of life of the class having low social economic level was found lower. In this study, the women's physical and mental component scores were found much lower than the low social economic class' scores. It is considered that the reason of this situation is that both the region surveyed has a low social economic level and the women have settled in the region by immigration. Besides, it is quite remarkable that performed nursing interventions have increased the quality of life significantly. Similarly, it is stated that the interventional studies conducted by Altuğ and Ege-aiming at increasing the quality of life have positively affected the quality of life of individuals (Altuğ & Ege, 2013). Various methods or interventions can be used to improve individuals' healthy lifestyle behaviors and the quality of life. However, it is important that these methods are both low in cost and efficient. In addition, preventing diseases is also quite important for a healthy life, the quality of life and cost utility. In this process, nursing is one of the most important health professions to improve and protect the health of the society. Especially the theme that ICN emphasizes as "Nurses: A Force for Change, a Vital Resource for Health" both has been an inspiration for this study and the result of this study has been an evidence for this theme.

Author contributions: All authors provided substantial contributions to the acquisition, analysis, or interpretation of data for the study and participated in revising it critically for important intellectual content. All authors have approved the version to be published and agreed to be accountable for all aspects of the study in ensuring that questions related to the accuracy or integrity of any part of the study are appropriately investigated and resolved.

REFERENCES

- Akan, Y., Arlan, İ. (2008). Migration economics: A study on Turkey (1st ed.). Ekin Press and Publish: Bursa. 3-16.
- Altuğ, K., Ege, E. (2013). Effects of health education on mothers' readiness for postpartum discharge from hospital, on postpartum complaints, and quality of life. Journal of Research and Development in Nursing, 15(2), 45-56.
- Demir, G., Bicer, S., Büyüksor, G., Özen, B. (2016). Attitudes of nursing students about ageism and the related factors. International Journal of Caring Sciences, 9(3), 900-908.
- Erdoğan, S., Nahcivan, N., Esin, M. N.(2015). Research in nursing: process, execution and critical, Istanbul, Nobel Medical Printing, 119-120.
- Esin, N. (1999). The adaptation of the healthy lifestyle behaviour scale for Turkey. Nurs Bull, 12(45), 87-95.
- Güler, G., Güler, N., Kocataş, S., Yıldırım, F., Akgül, N. (2008). Behaviors of healthy life style of academic personnell who work at a university. C.Ü. Journal of Nursing, 12(3), 18-23.
- Healthy aging and chronic illnesses project (2012). Turkey meeting. 11.02.2019.
- Hjelm, K., Bard, K., Nyberg, P., Apelqvist, J. (2003). Religious and cultural distance in beliefs about health and illness in women with diabetes mellitus of different origin living in Sweden. International Journal of Nursing Studies, 40(6), 627-643.
- Karadeniz, G., Uçum, E. Y., Dedeli, Ö., Karaağaç, Ö. (2008). Healthy lifestyle behaviors of university students. TAF Prev Med Bull, 7(6), 497-502.
- Kaya Erten, Z., Zincir, H. (2018). Migration with Social Gender, Aydın Avci İ, editor. Migration and İmmigrant Health (Göç ve Göçmen Sağlığı). 1_{st}. ed. Ankara. Türkiye Klinikleri, 6-9.
- Kaya Erten, Z., Seviğ Ü. (2018). The efficacy of self-esteem promotion program on the adolescents migrated from east and southeastern anatolia regions. Hacettepe University Journal of Nursing Faculty, 5(2), 85-101.
- Koçoğlu, D., Akın, B. (2009). The relationship of socioeconomic inequalities to healthy lifestyle behaviors and quality of life. DEUHYO ED, 2(4), 145-154.
- Koçyiğit, H., Aydemir, Ö., Ölmez, N., Memiş, A. (1999). The validity and reliability of Turkish version of the Short Form 36 (SF-36). Turkish J Drugs Therap, 12, 102-106.
- Kuruüzüm, A. (2002). A field research on the adaptation problem of returned emigrants' children. Akdeniz I.I.B.F. Magazine, 3, 102-113.
- Lecaj, F. (2019). Globalisation migration and woman. International Humanities and Social Science Review (IHSSR), 3(1), 49-58.
- Onat, A. (2004). Strategies for cardiovascular prevention related to a national cardiac health policy. Turk Kardiyol Dern Ars, 32(9), 596-602.
- Onat, A. (2012). TARF Survey 2011: Mortality and performance in the long-term follow-up. Archives of the Turkish Society of Cardiology. March, 40(2), 117-121.
- Özkan, S., Yılmaz, E. (2008). The health-promoting lifestyles of nurses working at hospital. Fırat Health Services Magazine, 3(7), 90-104.
- Özkul, K. (2019). Copper processing from tradition to future and Urfa. UBAK SYMPOSIUM (Social and Educational Sciences)

- Schwartz, A. V., Pan, Q., Hazuda, H. P., Horton, E., Hoskin, M. A., Kalyani, R. R., DPP Research Group. (2018). Long-Term Effects of Lifestyle Intervention and Metformin during DPP on Appendicular Lean Mass.
- Stanhope, M., Lancester, J. (2016) Publich Health Nursing. Promoting and Protecting the health of vulnerable Populations. 9. Ed. Elsevier, 750.
- The DPP Research Group. (2002) NEJM, 346:393-403.
- Vançelik, S., Önal, S. G., Güraksın, A. (2006). Body weight status and related factors in Atatürk University students. TSF Preventive Medicine Bulletin, 5 (2), 72-82.
- Walker, S. N., Sechrist, K. R., Pender, N. J. (1987). Sağlığı geliştiren yaşam tarzı profili: gelişim ve psikometrik özellikler. Hemşirelik araştırması .
- WareJr, J. E., Sherbourne, C. D. (1992). The MOS 36-item short-form health survey (SF-36). I. Conceptual framework and item selection. Med Care, 30(6), 473-83.
- Wilson, P. W., D'Agostino, R. B., Sullivan, L., Parise, H., Kannel, W. B. T. (2002), Overweight and obezity as determinants of cardiovascular risk: The Framingham experience. Arch Intern Med, 162(16), 1867-1872.
- Yalçın, C. (2004). Göç Sosyolojisi (1sted.). Anı Printing: Ankara, 11-22.
- Yalçınkaya, M., Özer, F. G., Yavuz Karamanoğlu, A. (2007). Assessment of healthy lifestyle behaviors to health workers. TSK Preventive Medicine Bulletin, 6(6), 409-420.
- Yıldız, A., Tarakcı D., Karantay Mutluay, F. (2015). The relationship between physical activity level and body composition in young adults: Pilot study. HSP, 2(3), 297-305.
- Yıldız, M. Z., Alaeddinoğlu, F. (2011), Migration and poverty: Hakkari sample. Gaziantep Üniversitesi Sosyal Bilimler Dergisi, 10(1), 437–462.
- Yılmazel, G., Büyükkayacı Duman, N. (2016). Healthy lifestyle behaviors and preventive health applied to women ages 18-64: A sample from the Çorum province. TAF Prev Med Bull, 15(2), 92-98.