Eskisehir
Medical
Journal
Eskişehir Tıp Dergisi

AN EXAMINATION OF PRENATAL AND POSTNATAL HEALTH PROMOTING BEHAVIORS OF WOMEN BASED ON THE MODE OF CONCEPTION

GEBE KALMA ŞEKİLLERİNE GÖRE KADINLARIN DOĞUM ÖNCESİ VE SONRASI SAĞLIKLI YAŞAM BİÇİMİ DAVRANIŞLARININ İNCELENMESİ

iD ESİN DALYAN[1]   iD YELİZ KAYA[2]

[1]Merkezfendi State Hospital, General Intensive Care Unit, Manisa, Turkey
[2]Eskisehir Osmangazi University, Faculty Of Health Sciences, Department Of Gynecology And Obstetrics Nursing, Eskisehir, Turkey

ABSTRACT

Introduction: The increasing prevalence of obesity among women of reproductive age and the accompanying possible risks has expedited studies on health-promoting lifestyle profiles throughout pregnancy and the postpartum period. Studies aiming to evaluate these profiles on women undergoing infertility treatment are mostly focused on the preconception period and examine the effects of these behaviors on treatment outcomes and reproductive performance. This study, the aim was to investigate whether there was a statistically significant difference in the health-promoting lifestyle profiles according to the type of conception method.

Methods: 89 pregnant women who had conceived by spontaneous and 89 pregnant women who had conceived after undergoing Assisted Reproductive Technologies (ARTs) were included to the study. The Health Promoting Lifestyle Profiles Scale (HPLP-II) was completed twice in the perinatal and postpartum period.

Results: There were significantly differences at the mean scores of the Physical Activity, Stress Management and the HPLP- II score between two group at the perinatal period while there were significantly differences only at the mean scores Interpersonal Relationships and Stress Management between two groups at the postpartum period. It was found that the all-subtypes' mean scores (except Health Responsibility for group 1) and total HPLP- II score were significantly decreased at the postpartum period.

Conclusion: Health professionals should inform all women who intend to become pregnant and are about to give birth about healthy lifestyles and strategies for coping with situations that affect quality of life.

Key Words: Health Promotion, Pregnant Women, Health Promoting Lifestyle Profiles, Assisted Reproductive Techniques.

ÖZET

Giriş: Üreme çağındaki kadınlar arasında obezitenin artan yaygınlığı ve buna eşlik eden olası riskler, gebelik ve doğum sonrası dönem boyunca sağlığı geliştirici yaşam tarzı profilleri üzerine yapılan çalışmaları hızlandırmıştır. Bu profilleri infertilite tedavisi gören kadınlar üzerinde değerlendirmeyi amaçlayan çalışmalar çoğunlukla gebe kalma öncesi döneme odaklanmakta ve bu davranışların tedavi sonuçları ve üreme performansı üzerindeki etkilerini incelemektedir. Bu çalışmada, gebe kalma yöntemine göre sağlığı geliştiren yaşam tarzı profillerinde istatistiksel olarak anlamlı bir fark olup olmadığını araştırmak amaçlanmıştır.

Yöntemler: Çalışmaya kendiliğinden gebe kalan 89 gebe kadın ve Yardımcı Üreme Teknolojileri uygulandıktan sonra gebe kalan 89 gebe kadın dahil edilmiştir. Sağlıklı Yaşam Biçimi Davranışları Ölçeği-II perinatal ve postpartum dönemde iki kez doldurulmuştur.

Bulgular: Perinatal dönemde iki grup arasında Fiziksel Aktivite, Stres Yönetimi ve Sağlıklı Yaşam Biçimi Davranışları Ölçeği-II puan ortalamalarında anlamlı farklılıklar bulunurken, postpartum dönemde iki grup arasında sadece Kişilerarası İlişkiler ve Stres Yönetimi puan ortalamalarında anlamlı farklılıklar bulunmuştur. Tüm alt tiplerin puan ortalamalarının (grup 1 için Sağlık Sorumluluğu hariç) ve toplam Sağlıklı Yaşam Biçimi Davranışları Ölçeği-II puanının doğum sonrası dönemde anlamlı şekilde azaldığı bulunmuştur.

Sonuç: Sağlık profesyonelleri, gebe kalmayı planlayan ve doğum yapmak üzere olan tüm kadınları sağlıklı yaşam tarzları ve yaşam kalitesini etkileyen durumlarla başa çıkma stratejileri hakkında bilgilendirmelidir.

Anahtar Kelimeler: Sağlığın geliştirilmesi, Gebe kadın, Sağlıklı yaşam biçimi davranışları, Yardımcı üreme teknikleri

INTRODUCTION

Health-promoting lifestyle profiles are needed to protect and improve health status in every period of life. However, as it is closely related to maternal and fetal health, these profiles have specific importance throughout pregnancy, which is a critical period in a woman's life (1,2). In addition, the period of pregnancy is considered a time that may be convenient for women to change their health behaviors (3). Pregnancy usually pushes women to review and change some of their lifestyle choices (4). For instance, the support to be provided for the development of the relationship between the mother and fetus (the mother's thoughts and feelings towards her unborn baby and moments involving fetal movements, etc.) may facilitate a behavior change (3).

On the other hand, some unhealthy behaviors/habits (such as smoking), which are known to harm the health of the fetus, vary depending on social pressure and expectations (3,4). The same expectations continue in the postpartum period for the well-being of mother and baby.

The postpartum period is another critical period in terms of protecting and improving the health status of the woman as well as the baby and the family. Although postpartum is the period in which maternal-neonatal mortality and morbidity cases are frequently encountered (5), mothers are more likely to prioritize their babies in this period and push their own health to the background (6). As most women tend to ignore or abandon health-promoting behaviors in this period as they try to adapt to their new roles and responsibilities, mothers should be encouraged and supported to adopt a health-promoting lifestyle after birth to improve maternal health (7).

A literature review revealed numerous prior research on health-promoting lifestyle profiles conducted on different populations (elderly individuals, university students, healthcare professionals, adolescents, patients with cancer, factory workers, and women of childbearing age). However, the number of studies conducted on a pregnant population is limited (8,9). The increasing prevalence of obesity among women of reproductive age and the accompanying possible risks has expedited studies on health-promoting lifestyle profiles throughout pregnancy and the postpartum period (10,11). Studies aiming to evaluate these profiles on women undergoing infertility treatment are mostly focused on the preconception period and examine the effects of these behaviors on treatment outcomes and reproductive performance. When the literature is reviewed, studies are found that compare fertile and infertile women in terms of health-promoting behaviors (12,13). However, there is no study examining the health-promoting lifestyle profiles of both groups during pregnancy and postpartum.

We examined whether there was a statistically significant difference in the health-promoting lifestyle profiles according to the type of conception method (spontaneously or with ART support).

METHODS

This descriptive study consists of women who applied to the Gynecology and Obstetrics Polyclinic of Eskişehir Osmangazi University Health Care Practices and Research Hospital between December 2018 and December 2019 with the diagnosis of pregnancy. The sample of the study were women in the third trimester of their pregnancy (27 weeks and above) (14), who had a healthy pregnancy (no chronic disease or sleep disorders), carried a healthy fetus, and consented to participate in the study.

The women were divided into 2 groups based on their mode of conception: those who became pregnant with spontaneously (group 1) and those who became pregnant

ART (group 2), and the number of participants to be allocated in both groups was determined by power analysis and was performed based on the "number of pregnancies" referred to in the study conducted by Gharaibeh et al. (2005). The results of this, with 80% power, α = .05, ß = .20, determined that the number of participants in each group should be 89 (15).

Research Questions:

1. Are the mean scores of prenatal HPLP-II of those who conceived with ART higher than those of those who conceived spontaneously?

2. Is there a statistically significant difference between the prenatal mean scores of the prenatal HPLP-II of those who conceived with ART and those who conceived spontaneously?

3. Is there a statistically significant difference between the mean scores of postnatal HPLP-II of those who conceived with ART compared to those who conceived spontaneously?

4. Is there a statistically significant difference between the mean postnatal HPLP-II scores of those who conceived with ART and those who conceived spontaneously?

Research data were collected by the researcher using the Personal Information Form (PIF) and a Likert-type scale filled in during one-to-one interviews and phone calls. The PIF was prepared in line with the literature review (2,4,15-18) and consists of a total of 43 open and closed questions evaluating the socio-demographic characteristics, obstetric characteristics, and conception-specific conditions of the participants.

The Health Promoting Lifestyle Profiles Scale (HPLP-II) was developed by Walker et al (19). 4 more items were added to the scale which increased the number of items to 52. The only difference between the two scales is the number of items. The validity and reliability of the Turkish version of HPLP-II were confirmed by Bahar et al. (2008) (20).

The questions in the scale measure health-promoting behaviors of the individual concerning a healthy lifestyle. The scale consists of a total of 52 items and 6 sub-scales. The sub-groups are entitled spiritual growth (SG), health responsibility (HR), physical activity (PA), nutrition (N), interpersonal relations (IR), and stress management (SM), and each can be used independently. The score obtained from the entire scale constitutes the total score of HPLP-II. All items of HPLP-II are positive and none of the items are reverse coded. The participants are required to respond to the items using a 4-point Likert-type scale with the answers "Never", "Sometimes", "Often" and "Routinely" which are scored respectively as 1, 2, 3, and 4. The lowest and the highest scores that can be obtained from the scale are 52 and 208. A higher score obtained from the scale indicates that the individual more frequently applies the specified health. The internal consistency reliability coefficient of the

Table 1. Comparison of Women's Personal Characteristics Based on the Modes of Conception

Personal Characteristics	Group 1 (n=89)		Group 2 (n=89)		Total (n=178)		X^2 p^*
	n	%	n	%	n	%	
Age							
25 and younger	16	18.0	7	7.9	23	12.9	5.629
26-30	36	40.4	33	37.0	69	38.8	
31-35	22	24.7	32	36.0	54	30.3	0.133
36 and older	15	16.9	17	19.1	32	18.0	
Preconception BMI							
Slim	11	12.4	3	3.3	14	7.9	7.416
Normal	42	47.2	46	51.7	88	49.4	
Overweight	23	25.8	32	36.0	55	30.9	0.060
Obese	13	14.6	8	9.0	21	11.8	
Educational Background							
Primary School	18	20.2	19	21.3	37	20.8	1.022
Secondary School	18	20.2	20	22.5	38	21.3	
High School	25	28.1	28	31.5	53	29.8	0.799
University and higher	28	31.5	22	24.7	50	28.1	
Work Status							
Yes	14	15.7	18	20.2	32	18.0	0.610
No	75	84.3	71	79.8	146	82.0	0.559
Profession							
Housewife	65	73.0	56	62.9	121	68.0	2.090
Other	24	27.0	33	37.1	57	32.0	0.199
Family Status							
Nuclear family	79	88.8	78	87.6	157	88.2	0.054
Extended family	10	11.2	11	12.4	21	11.8	1.000
Longest-lived place							
City center	64	71.9	48	53.9	112	62.9	6.286
Town center	16	18.0	28	31.5	44	24.7	0.042
Village	9	10.1	13	14.6	22	12.4	

*Chi-square (χ2) test
BMI: Body Mass Index

scale, Cronbach Alpha value is 0.92.

The women included in the study were interviewed twice, once in the third trimester of pregnancy and again in the postpartum period. In the first interview, the PIF and HPLP-II were completed by the women, their contact information was obtained for the second interview, and the expectation was that they would give birth. In the second interview, held in the postpartum period (40-42 days), the women were contacted by telephone and HLBS-II was applied again.

A statistical analysis of the collected research data was carried out using the SPSS software (version 25.0). Descriptive statistical methods (frequency, percentage values, mean, and standard deviation) were used to evaluate the data and the Chi-square (χ2) test was used to determine whether the data were similarly distributed among pregnancy groups. In addition, the independent sample t-test was used to test whether the scores obtained from two non-correlated samples differed significantly from each other and the dependent sample t-test was applied to test the difference between two different measurement times. An error rate was determined in all tests and the results with $p < .05$ were considered statistically significant.

Ethics committee approval (Karabuk University Ethics Committee of Non-Interventional Clinical Research No: 7/2 dated 04.07.2018) before initiating the research. Permission for conducting the research (No: 90860 dated 05.09.2018) was obtained from the Eskişehir Osmangazi University Faculty of Medicine, Department of Obstetrics and Gynecology. The necessary permissions were obtained for using the scale for the purpose of this study and the consent of each pregnant woman who participated in the study was duly obtained after they were informed about the study. A path consistent with research and publication ethics has been followed herein.

RESULTS

The number of participants between 26-30 years of age is relatively high in both groups of the study (Table 1), however, the mean age of the participants in the group 1 and 2 were 29.42 ± 5.12 and 31.40 ± 4.47 respectively. Preconception body mass index (BMI) calculations indicated that 30.9% of women were overweight, 11.8% were obese, and nearly half of them (49.4%) were of normal weight. (Table 1). The majority of the women participating in the research (59.6%) described their health status as good (74.2 % in the group 1 and 44.9 % in the group 2, p < .001) whereas the rate of all participants who described their health status as bad was 5.6% (Table 2).

The rate of 2 or more pregnancy losses was 7.9% group 1 and 3.4% group 2, and the rate of 3 or more pregnancies was 39.3% group 1 and 9.0% group 2.

Table 2. Comparison of Women's Health Status and Obstetrical Characteristics Based on the Modes of Conception

Personal Characteristics	Group 1 (n = 89)		Group 2 (n = 89)		Total (n = 178)		X^2 p^*
	n	%	n	%	n	%	
Perception of health status							
Poor	4	4.5	6	6.8	10	5.6	19.229
Moderate	13	14.6	18	20.2	31	17.4	p
Good	66	74.2	40	44.9	106	59.6	<0.001
Very Good	6	6.7	25	28.1	31	17.4	

*Chi-square (χ2) test

There were significantly differences at the mean scores of the PA, SM and the total HPLP- II score between two

Table 3. Comparison of Prenatal and Postnatal Mean HPLP-II Total and Sub-Scale Scores of the Groups Based on the Modes of Conception

Scale and Sub-Scales	Group 1		Group 2		t p1*	t p2*	t p3**	t p4**
	Prenatal M ± SD	Postnatal M ± SD	Prenatal M ± SD	Postnatal M ± SD				
Health Responsibility	24.15 ± 3.46	23.89 ± 3.08	23.92 ± 3.38	23.31 ± 2.87	0.460 0.646	1.284 0.201	1.118 0.267	3.660 <0.001
Physical Activity	14.73 ± 4.36	10.42 ± 2.88	16.88 ± 4.73	10.45 ± 2.93	-3.149 0.002	-0.077 0.938	9.489 <0.001	13.400 <0.001
Nutrition	24.84 ± 3.45	23.38 ± 2.86	25.75 ± 4.28	23.45 ± 3.36	-1.562 0.120	-0.144 0.886	4.921 <0.001	5.732 <0.001
Spiritual Growth	26.17 ± 3.53	25.63 ± 2.71	26.04 ± 2.10	25.99 ± 2.27	0.284 0.777	-0.960 0.339	2.710 0.008	0.349 0.728
Interpersonal Relationships	24.72 ± 3.66	22.43 ± 3.14	24.98 ± 2.28	23.78 ± 2.33	-0.565 0.573	-3.253 < 0.001	9.801 <0.001	6.079 <0.001
Stress Management	20.82 ± 3.44	16.27 ± 2.58	22.06 ± 2.31	17.27 ± 2.23	-2.813 0.006	-2.767 0.006	14.608 <0.001	15.887 <0.001
HPLP-II Scale	135.44 ± 14.91	122.01 ± 11.08	139.63 ± 11.64	124.25 ± 8.68	-2.090 0.038	-1.498 0.136	13.349 <0.001	15.399 <0.001

* Independent Sample t-Test **Paired Samples t-Test,
M + SD: Mean Score ± Standard deviation
HPLP-II: The Health Promoting Lifestyle Profiles Scale
p1   Group 1 vs Group 2 at the prenatal period
p2 Group 1 vs Group 2 at the postpartum period
p3 Group 1 prenatal period vs postpartum period
p4 Group 2 prenatal period vs postpartum period

group at the perinatal period while there were significantly differences only at the mean scores IR and SM between two groups at the postpartum period. It was found that the all subtypes' mean scores (except HR for group 1) and total HPLP- II score of two groups were significantly decreased at the postpartum period (Table 3).

DISCUSSION

The highest mean scores of the pregnant women in both conception groups were observed in the spiritual growth (self-actualization) sub-scale whereas the lowest mean scores were observed in the physical activity sub-scale. A significant portion of the studies conducted in our country on this subject (2,8,17,22) have similar results. The reflection of Turkish culture on the lifestyles of individuals is suggested to be a cause of these similarities. Higher mean scores in the spiritual growth (self-actualization) sub-scale compared to other sub-scales, on the other hand, may be associated with factors such as cultural structure and religious beliefs. In addition, the fact that the lowest mean scores are observed for the physical activity sub-scale, and thus negatively affect exercise behavior, may be attributed to reasons such as the habit of regularly doing exercises has not yet settled into Turkish society, women do not

have enough information about the exercises they can do throughout their gestation period, the woman is expected to assume several responsibilities at home such as taking care of other children and cleaning can only allocate limited time for doing exercise, and a fear of losing the baby.

Prenatal mean scores in the physical activity and stress management sub-scales and the HPLP-II total scores of the women in the ART conception group were found to be higher than the women in the spontaneous conception group. No other study was found in the literature focusing on the HPLP of women based on the modes of conception, therefore it was not possible to compare the research with similar studies. However, a follow-up study with the participation of 102 infertile women and 66 infertile men to examine the effects of a health-promoting lifestyle and anxiety levels on IVF outcomes indicated that participants exhibited a strong tendency to improve their lifestyles during their treatment (18). Accordingly, a woman motivated to initiate or develop health-promoting behaviors prior to gestation is expected to maintain health-promoting behaviors throughout the gestation period and to be more careful and attentive in this regard to improve her control over the process and to crown her struggle with a healthy baby. Yadolahi et al. and Onat and Aba stated within the framework of their findings that

unintended pregnancies may cause pregnant women to lead an unhealthy lifestyle (2,23). While there were unintended pregnancies in the spontaneous conception group of this study, pregnancies in the ART conception group were long-planned and desired, which thereby indicates that they had lived a healthy lifestyle.

One of the obstacles to adopting a health-promoting lifestyle is the lack of time (24). Time constraints may further affect physical activity behaviors and the use of stress management techniques throughout gestation (15). A study (23) indicated a negative significant relationship between parity and physical activity score; accordingly, higher parities resulted in less physical activity. As a result, one of the reasons why women in the ART conception group had higher mean scores concerning the physical activity and stress management sub-scales is argued to be caused by the fact that the vast majority of these women have an advantage in terms of the time they allocate for themselves as they do not have any children. In addition, the presence of women who tend to do physical activity to reduce their stress levels may also be effective in their mean scores.

The postpartum mean scores in the interpersonal relationships (IR) and Stress Management (SM) sub-scales of the women in the ART conception group were found to be significantly higher than the women in the spontaneous conception group. In addition, although the mean HPLP-II total scores were higher in the ART conception group, this difference was found to be statistically insignificant. Women receiving necessary support and having good interpersonal relationships can more successfully cope with their problems and improve their productivity and quality of life (21,25). Therefore, the higher mean scores obtained by women in the ART conception group from the stress management sub-scale are argued to be due to higher mean scores obtained in the interpersonal relationships (IR) sub-scale compared to the spontaneous conception group. In addition, fulfilling the phenomenon of giving birth, which is considered one of the main purposes of marriage, and also for emotions and situations such as feeling like a "real mother" (26), making up for deficiencies, meeting expectations, "getting rid of being stigmatized" (27), and proving oneself are estimated to affect the postpartum interpersonal relationships of women in the ART pregnancy group.

A significant decrease was observed between the prenatal and postpartum mean HPLP-II total scores for both conception groups. This decrease is thought to be caused by physiological and psychological changes brought about by the postpartum period leading to a decrease in the self-care abilities of the mother, the time conflict between parenting and private activities, mothers always prioritizing their babies while putting themselves in the background, and a depressed mood experienced at different levels (6,7,28). In addition, the postpartum decrease in the mean HPLP-II total scores in the ART conception group is higher compared to the prenatal period. The reason why women in the ART conception group tend to exhibit a strong tendency to improve their lifestyles throughout their gestation period yet fail to exhibit the same determination in maintaining health-promoting behaviors after birth is expected to be attributable to the comfort of having fulfilled the struggle of pregnancy by giving birth (21) and the notion that the infant's dependence on the mother's body is greatly reduced with birth. Interestingly, we found that despite the fact that women needing ART support had higher HPLP-II levels in the antenatal period, they had lower HPLP-II levels in the postnatal period than women with spontaneous conception.

The limitations of the research were that these results could not be generalized to the entire pregnant population as the study was conducted in a single healthcare institution and the postpartum depression factor was not addressed.

CONCLUSION

While the need for assisted reproductive technologies could be described as a motivating factor for healthy lifestyle behaviours, the delivery period is a major factor in reducing the quality of life for all women, regardless of the mode of conception. Health professionals should inform all women who intend to become pregnant and are about to give birth about healthy lifestyles and strategies for coping with situations that affect quality of life.

REFERENCES

1.Aşcı Ö, Rathfisch G. Effect of lifestyle interventions of pregnant women on their dietary habits, lifestyle behaviors, and weight gain: a randomized controlled trial. J Health Popul Nutr 2016;35:7.

2.Onat G, Aba YA. Health-promoting lifestyles and related factors among pregnant women. Turk J Public Health 2014;12:69-79.

3.Olander EK, Smith DM, Darwin Z. Health behaviour and pregnancy: A time for change. J Repro Infant Psych 2018;36:1-3.

4.Lin YH, Tsai EM, Chan TF, Chou FH, Lin YL. Health promoting lifestyles and related factors in pregnant women. Chang Gung Med J 2009;32:650-61.

5.WHO recommendations on postnatal care of the mother and newborn. 2013. Available at: http://apps.who.int/iris/bitstream/10665/97603/1/9789241506   649_eng.pdf Accessed November, 2019.

6.Hajimiri K, Shakibazadeh E, Mehrizi AAH, Shab-Bidar S, Sadeghi R. The role of perceived barrier in the postpartum women's health promoting lifestyle: A partial mediator between self-efficacy and health promoting lifestyle. J Edu Health Promot 2018;7:38.

7.Chen CM, Kuo SF, Chou YH, Chen HC. Postpartum Taiwanese women: Their postpartum depression, social support and health-promoting lifestyle profiles. J Clin Nurs 2007;16:1550-60.

8.Aksoy YE, Turfan EÇ, Yılmaz SD. Assessment of health-promoting lifestyle habits in normal and high-risk pregnancies. Perinatal journal 2017;25:26-31.

9.Walker LO, Murphey CL, Nichols F. The broken thread of health promotion and disease prevention for women during the postpartum period. J Perinat Educ 2015;24:81-92.

10.Aşcı Ö, Oskay Ü. Obese Women Pregnancy And Weight Management, International Peer-Reviewed Journal of Nutrition Research 2015;2:56-67.

11.Soltani H, Smith D, Olander E. Weight, lifestyle, and health during pregnancy and beyond. J Pregnancy 2017; 4981283.

12.Khosrorad T, Dolatian M, Riazi H, Mahmoodi Z, Alavimajd H, Shahsavari S et al. Comparison of lifestyle in fertile and infertile couples in Kermanshah during 2013. Iran J Reprod Med 2015;13:549-56.

13.Youness EM. Lifestyle factors between fertile and infertile women at Assiut Women's Health Hospital. Egypt Nurs J 2018;15:9-20.

14.Amanak K, Ünay V. Üçüncü trimester gebelerin doğuma yönelik endişeleri: Nitel bir çalışma. Mersin Üniv Saglık Bilim Derg 2020;13:348-60.

15.Gharaibeh M, Al-Ma'aitah R, Al Jada N. Lifestyle practices of Jordanian pregnant women. Int Nurs Rev 2005;52:92-100.

16.Crozier SR, Robinson SM, Borland SE, et al. Do women change their health behaviours in pregnancy? Findings from the Southampton Women's Survey. Paediatr Perinat Epidemiol 2009;23:446-53.

17.Gökyıldız S, Alan S, Elmas E, Bostancı A, Küçük E. Health-promoting lifestyle behaviours in pregnant women in Turkey. Int J Nurs Pract 2014;20:390-7.

18.Onat G, Aba YA. The effects of a healthy lifestyle and of anxiety levels on IVF outcomes. Afr J Reprod Health 2015;19:92-101.

19.Walker SN, Sechrist KR, Pender NJ. The health-promoting lifestyle profile: development and psychometric characteristics. Nurs Res 1987;36:76-81.

20.Bahar Z, Beşer A, Gördes N, Ersin F, Kıssal A. Healthy Life Style Behavior Scale II:A Reliability And Validity Study . C.Ü. Hemşirelik Yüksekokulu Dergisi 2008;12:1-13.

21.Gul B, Riyaz MA, Batool N, Yasmin H, Riaz MN. Social support and health related quality of life among pregnant women. J Pak Med Assoc 2018;68:872-5.

22.Kanığ M, Eroğlu K. Investigation of the relationship between the level of perceived social support and healthy lifestyle behaviors of pregnant women. J Psychiatric Nurs 2020;11:333-40.

23.Yadollahi P, Davazdahemami S, Bromandfar K, Fathizadeh N. The relationship between life style and individual reproductively characteristics of pregnant woman. Iran J Nurs Midwifery Res 2007;12:75-9.

24.Kazemi AF, Hajian S, Ebrahimi-Mameghani M, Khob MK. The perspectives of pregnant women on health-promoting behaviors: an integrative systematic review. Int J Womens Health Reprod Sci 2018;6:97-105.

25.Aksoy T, Uçar H. Healthy Lifestyle Behaviors of Nursing Students. JOHUFON 2014;1:53-67.

26.Wang LH, Lee TY. Assisted pregnancy after infertility: Taiwanese women's experience. J Med Sci 2004;24:49-256.

27.Ranjbar F, Behboodi-Moghadam Z, Borimnejad L, Ghaffari SR, Akhondi MM. Experiences of infertile women seeking assisted pregnancy in Iran: A qualitative study. J Reprod Infertil 2015;16:221-8.

28.Fowles ER, Cheng HR, Mills S. Postpartum health promotion interventions: A systematic review. Nurs Res 2012;61:269-82.