

Health-Promoting Lifestyles in Pregnant Adolescents and the Affecting Factors

Gebe Adölesanlarda Sağlığı Geliştirici Yaşam Tarzları ve Etkileyen Faktörler

Pınar KARA¹

¹Kahramanmaraş İstiklal University, Faculty of Health Sciences, Nursing Department, Kahramanmaraş, Türkiye



Evşen NAZİK²

²Çukurova University, Faculty of Health Sciences, Nursing Department, Department of Obstetrics and Gynecology Nursing, Adana, Türkiye



Ebru VAR³

³Adana City Training and Research Hospital, Adana, Türkiye



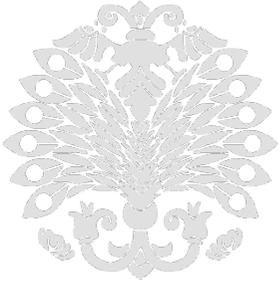
Öznur AKÇAYÜZLÜ⁴

⁴Çukurova University Health Sciences Institute, Department of Nursing, Adana, Turkey



Funda ÖZDEMİR⁵

⁵Ankara University, Nursing Faculty, Nursing Department, Department of Obstetrics and Gynecology Nursing, Ankara, Türkiye



Geliş Tarihi/Received 31.01.2023

Kabul Tarihi/Accepted 20.01.2024

Yayın Tarihi/Publication Date 29.03.2024

Sorumlu Yazar/Corresponding author:

Pınar KARA

E-mail: karapinar@hotmail.com

Cite this article: Kara P., Nazik E., Karaçay Yıkar S., Akçayüzlü Ö., & Özdemir F. (2024). Health-Promoting Lifestyles in Pregnant Adolescents and the Affecting Factors. *Journal of Midwifery and Health Sciences*, 7(1):125-134.



Content of this journal is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

ABSTRACT

Objective: The study was carried out to determine the health-promotion lifestyles behaviors of pregnant adolescents and related factors.

Methods: The descriptive this study was conducted with between May-August 2015 on total of 56 pregnant adolescents in the outpatient departments of the obstetric and gynecologic hospital in Adana, Republic of Turkey. The study data were collected using the "Personel Information Form" and the "Health Promotion Lifestyle Profile Scale (HPLP)". The study data were evaluated using SPSS 17.0 software. The statistical significance level was set at $p < .05$.

Results: The mean total HPLP score of the pregnant adolescent was 112.85 ± 15.79 . The mean point totals of the subscales of HPLP were 34.66 ± 5.90 (self-actualization), 20.75 ± 5.19 (health responsibility), 7.32 ± 2.78 (physical activity), 16.05 ± 3.11 (nutrition), 19.76 ± 3.50 (interpersonal support), and 14.30 ± 2.72 (stress management). Significant associations were not found between the HPLP with socio-demographic and obstetric characteristics of pregnant adolescent ($p > .05$).

Conclusion: The health behavior of pregnant adolescent was intermediate level. Health care professionals should teach antenatal follow-up and healthy lifestyle behaviors according to adolescent pregnancies. Additionally, support programs should be organized to ensure that pregnant adolescents take responsibility for their own health.

Keywords: Health-promoting lifestyles, pregnant adolescents, health status, health professional

ÖZ

Amaç: Araştırma, adölesan gebelerin sağlıklı yaşam biçimid avranışları ve etkileyen faktörleri belirlemek amacıyla yapılmıştır.

Yöntemler: Tanımlayıcı ve kesitsel tipteki bu araştırma 56 adölesan gebeyle gerçekleştirilmiştir. Araştırmanın verileri "Kişisel Bilgi Formu" ve "Sağlıklı Yaşam Biçimi Davranışları Ölçeği (SYBDÖ)" kullanılarak toplanmıştır. İstatistiksel anlamlılık düzeyi $p < .05$ olarak tanımlanmıştır.

Bulgular: Adölesan gebelerin SYBDÖ toplam puanı 112.85 ± 15.79 'dur. SYBDÖ altboyut puan ortalamaları 34.66 ± 5.90 (kendini gerçekleştirme), 20.75 ± 5.19 (sağlık sorumluluğu), 7.32 ± 2.78 (fiziksel aktivite), 16.05 ± 3.11 (beslenme), 19.76 ± 3.50 (kişilerarası destek), ve 14.30 ± 2.72 (stress yönetimi) olarak bulunmuştur. Adölesan gebelerin sosyo-demografik ve obstetrik özellikleri ile SYBDÖ arasında istatistiksel olarak anlamlı bir fark bulunmamıştır ($p > .05$).

Sonuç: Adölesan gebelerin sağlıklı yaşam biçimi davranışları orta düzeydeydi. Sağlık profesyonelleri adölesanların gebeliklerine göre antenatal takipleri ve sağlıklı yaşam biçimi davranışlarını öğretmelidir. Ayrıca, adölesan gebelerin kendi sağlık sorumluluklarını almalarını sağlayacak destek programları düzenlenmelidir.

Anahtar Kelimeler: Sağlıklı yaşam biçimi, adölesan gebe, sağlık durumu, sağlık profesyoneli

Introduction

The time between childhood and adulthood known as puberty is when a person begins to prepare for life. Many psychological and physical changes occur during puberty (Özdemir et al., 2010). The World Health Organization [WHO] accepts adolescents between the ages of 10-19. There are approximately 1 in 6 people, who are between the ages of 10 and 19 or 1.2 billion adolescents in the world (WHO, 2023). About 16 million girls who are between the ages of 15 to 19 and some 1 million girls under 15 give have birthed every year-most in low- and middle-income countries. Globally, the adolescent birth rate was 416 per 1000 adolescent girls who was between ages of 15-19 in 2022. (WHO, 2023).

16% of the population in Turkey is adolescent, 7% of pregnancies occur in adolescent age and 4 % of these pregnancies result in adolescent motherhood (TDHS, 2018). Adolescent pregnancies continue to attract attention as a significant public health issue around the world. Numerous social and personal risk factors play a role in the development of adolescent pregnancy. These pregnancies are high-risk pregnancies that may result in short- and long-term negative maternal and child health outcomes (Aydın 2013; Kara Uzun & Şimşek Orhon, 2013). Adolescent mothers (ages 10–19 years) face higher risks of eclampsia, puerperal endometritis, and systemic infections comparison women who are between ages of 20 to 24 years; and babies of adolescent mothers are increased risk of low birth weight, premature childbirth, and severe neonatal conditions. In addition globally, complications during pregnancy and delivery are the important reason of death for 15–19-year-old girls (WHO, 2023).

Adolescent pregnancy is a global phenomenon with clearly known causes and serious health, social and economic consequences. Adolescent pregnancy tends to be higher among those with less education or of low economic status (WHO, 2023). Considering these facts, the importance of healthy lifestyle behaviors for adolescent pregnant women to lead a healthy life becomes evident. “The healthy lifestyle is defined as the controlling all behaviors that may affect the health of the individual, selecting behaviors appropriate to the health condition, and making these behaviors into a habit” (Kostak et al., 2014; Bozhüyük et al., 2012). Health behaviors are activities that individuals engage to improve health, reduce or prevent deficiencies. Healthy lifestyle behaviors include adequate and regular exercise, balanced nutrition, non-smoking, health care, stress management and hygiene measures (İlhan et al., 2010). The most common risky health behaviors cover smoking, alcohol and substance abuse, unhealthy nutritional behavior, suicide,

inadequate physical activity, violent behaviors, sexually transmitted diseases; more rarely, unhealthy weight control, communication problems with family, stress management, tooth brushing in the literature (Dil et al., 2015).

The promotion of positive health behaviors and the adoption of healthy lifestyle play a key role in health promotion and prevention of diseases. Healthy lifestyle behaviors are often acquired or reshaped during the adolescence period. Adolescence is characterised by transition, exploration, and openness to change, offering opportunities for radical shifts in diet, physical activity, and other risks for non communicable diseases. This same novelty-seeking and openness to change also makes adolescents a vulnerable group to commercial exploitation and other unhealthy influences, with lifelong and intergenerational consequences (Hargreaves et al., 2022). Adolescents are at risk for adverse health behavior, especially pregnancy, smoking and alcohol use. Also, the nutritional behavior of adolescents is not at the desired level (Karadamar et al., 2014). Adolescents are unable to adapt because of the complex changes in this period of growth and development and even fail to cope with some psychosocial problems. Some studies indicate that the healthy lifestyles behaviors are not yet at the desired levels in the adolescent girls (Havlioğlu & Koruk, 2013). In a study, the HPLP score of adolescents was 126.4 ± 19.5 (Karadamar et al., 2014). Many studies showed that adolescents of health promoting lifestyle behaviours were found to be moderate (Kostak et al., 2014; Dil et al., 2015; Cihangiroğlu & Deveci, 2011; Şimşek et al., 2012; Karadamar et al., 2014).

Individual characteristics (age, and socio-economic status), health behaviors (exercise), perceived health status, self-efficacy of health behaviors, and perceptions of family or stare' health-promoting behaviors (a form of social support) are associated with health-promoting lifestyles of women. Pregnancy cover a period in which women go through physiological, psychological and social changes. The health-promoting lifestyle has an exclusively important role during pregnancy due to link to healthy childbirths directly, and to low maternal-fetal mortality and morbidity rates (Onat & Aba, 2015). Previously study related to health promotion during pregnancy found that the mean HPLP scores were 124.44 ± 24.87 (Coşkun, 2016) and 130.7 ± 20.0 (Onat & Aba, 2015). A study reported that Jordanian pregnant women have moderate score on the total health-promoting lifestyle behaviours during pregnancy (Gharaibeh et al., 2005). Another study (2009) showed that the standardized total score of health promoting lifestyles was 66.88 (moderate level) in 172 pregnant Taiwanese women (Lin et al., 2009).

The lifestyles and behaviours affect babies of pregnant women. Therefore, teaching healthy lifestyle behaviors to pregnant adolescents is important to prevent adverse effects on mother and baby health. Nurses and midwives have an important role on the adolescent pregnant women care, physical and psychological evaluation, determining care requirements and providing consultative services. The purpose of this study was to evaluate healthy lifestyles among pregnant adolescents and the affecting factors.

We attempted to answer research questions follow:

1. What are the healthy lifestyle behaviours of pregnant adolescents?
2. What factors affect pregnant adolescents' healthy lifestyle behaviours?

Methods

The research is designed as a descriptive to assess the health-promoting lifestyles in pregnant adolescents and the affecting factors. The study was conducted with between May-August 2015 in outpatient clinic of Obstetric and Gynecologic Hospital in Adana.

The population of the study consists of adolescent pregnant women who came for prenatal routine check-up in obstetric and gynecology hospital in Adana, Republic of Turkey. When calculating the sample size to determine the factors affecting women's health-promoting lifestyles on Coşkun's study (Coşkun, 2016), a power analysis performed by using G*Power 3.1 (<http://www.gpower.hhu.de/>) software, total sample size was found to be 53 when using student t-test and taking 90% power and $\alpha=0.05$. This study was completed with 56 pregnant adolescent. The sample of the study consists of pregnant women who were appropriate for the criteria of the study and accepted to participate in the study. The inclusion criteria were as follows:

1. Being between 16–19 years old,
2. Not having a diagnosed risky pregnancy,
3. Being at least primary school graduate,
4. Being open to communication and co-operation,
5. Understanding and speaking Turkish,
6. Not participating in the pregnant women's education classes

Measures

“Personal Information Form” and “Health Promotion Lifestyle Profile Scale (HPLP)” were used to collect the study data.

Personal information form

The personal information form created by the researchers,

on the basis of the relevant literature includes 10 items questioning some socio-demographic and obstetric characteristics of pregnant women (Aksungur et al., 2011; Cihangiroğlu & Deveci 2011; Dil et al., 2015; Kara Uzun & Şimşek Orhon 2013; Karadamar et al., 2014; Karaahmetoğlu et al., 2014).

Health promotion life style profile scale (HPLP)

The scale was used to determine the behavior of a healthy lifestyle for pregnant adolescents. This scale was developed in 1987 by Walker, Sechrist, and Pender. Turkish validity and reliability study of the scale was carried out by Esin in 1999 (Esin, 1999). The HPLP scale has four-point Likert type, and six sub-scales with a total of 48 items: (1) Self-actualization (min–max: 13–52, 13 items); (2) health responsibility (min–max=10–40, 10 items), (3) physical activity (min–max=5–20, 5 items); (4) nutrition (min–max=6–24, six items); (6) interpersonal support (min–max=7–28, 7 items); and (7) stress management or dealing with stress (min–max=7–28, 7 items). The HPLP total scores range from 48 to 192. High scores indicated that the individuals performs a higher level of the indicated behaviors. The Cronbach's alpha of the HPLP value which was 0.91 Esin's study. The Cronbach's alpha value was 0.91 current study.

Statistical Analysis

The study data were analyzed using the SPSS 16.0 software. Descriptive statistics were used for distribution of socio-demographic and obstetric characteristics of adolescent pregnant. The suitability of the data for normal distribution was evaluated by the Kolmogorov Smirnov test before starting the analysis. Mann–Whitney U-test and Kruskal Wallish test were used for the non-normally distributed data. Scale scores have been reported as the mean, standard deviation and minimum/maximum. The findings were assessed with a 95% confidence interval at the $p<0.05$ significance level.

Results

42.9% of the participants were 18 years old and 46.4% married 17 years old. 26.8% of the participants were married not voluntarily and almost half (53.6%) were primary school graduates. 64.3% of the spouses of adolescents are 18-24 years old and 48.2% are primary school graduates. It was found that 62.5% of adolescents' income is equal to their expenses and 83.9% had social security. It was determined that 23.2% of adolescents were married with relatives, 53.6% were living in large families and 58.9% were living in villages. It was determined that 76.8% of the adolescents has got the first pregnancies. 61.4% of the pregnant adolescents are in the third trimester

and 71.4% of the pregnancies are planned pregnancies.

Table 1.
Distribution of Socio-Demographic and Obstetric Characteristics of Pregnant Adolescents

Characteristics	n	%
Age		
16	4	7.1
17	14	25.0
18	24	42.9
19	14	25.0
Married age		
15	4	7.2
16	12	21.4
17	26	46.4
18	12	21.4
19	2	3.6
Marriage shape		
Voluntarily	41	73.2
Not voluntarily	15	26.8
Education		
Literate	15	28.5
Primary school	31	53.6
High school	10	17.9
Husband's age		
18-24	36	64.3
25-35	20	35.7
Husband's education		
Literate	9	16.1
Primary school	27	48.2
High school	17	30.3
University	3	5.4
Income status		
Income < expenditure	10	17.9
Income = expenditure	35	62.5
Income > expenditure	11	19.6
Health insurance		
Yes	47	83.9
No	9	16.1
Family type		
Nuclear family	26	46.4
Extended family	30	53.6
Relative marriage		
Yes	13	23.2
No	43	76.8
Living place		
Village	9	16.1
Town	14	25.0
Province	33	58.9
Smoking		
Yes	6	10.7
No	50	89.3
Number of pregnancy		
1	43	76.8
2	13	23.2
First pregnancy age		
15	2	3.6
16	5	8.9
17	20	35.4
18	20	35.4

19	9	16.7
Form of previous birth (n=13)		
Normal birth	12	92.3
Caesarean	1	7.7
Trimester of current pregnancy		
1.trimester	6	10.8
2.trimester	16	27.8
3.trimester	34	61.4
The planning status of pregnancy		
Planned	40	71.4
Unplanned	16	28.6
Antenatal care frequency		
1-4	45	80.3
5 and above	11	19.7
Experience discomforts during pregnancy		
No discomfort	16	28.6
Nausea-vomiting	8	14.3
Weakness	26	46.3
Other	6	10.8

It was determined that 80.3% of the adolescents received antenatal care (Table 1). The mean total HPLP score of the adolescent pregnant women was 112.85 ± 15.79 . The mean total score of the sub-scales of HPLP were 34.66 ± 5.90 for self-actualization, 20.75 ± 5.19 for health responsibility, 7.32 ± 2.78 for physical activity, 16.05 ± 3.11 for nutrition, 19.76 ± 3.50 for interpersonal support, and 14.30 ± 2.72 for stress management (Table 2).

Table 2.
HPLP Total and Subscale Scores Of Pregnant Adolascents

HPLP and Subscale	Range	Mean \pm SD
Self-actualization	13-52	34.66 ± 5.90
Health responsibility	10-40	20.75 ± 5.19
Physical activity	5-20	7.32 ± 2.78
Nutrition	6-24	16.05 ± 3.11
Interpersonal support	7-28	19.76 ± 3.50
Stress management	7-28	14.30 ± 2.72
HPLP total	48-192	112.85 ± 15.79

There were not statistically significant differences socio-demographic and obstetric characteristics of pregnant adolescents with HPLP and subscale scores ($p > 0.05$, Table 3).

Discussion

The adolescent period is considered to be a period of transition from childhood to adulthood (Özdemir et al., 2010). Adolescence pregnancies are one of the high-risk pregnancies, and might cause significant in terms of maternal-neonatal social and health conditions (Aydın, 2013). The births that happen during adolescence are one of the most important social problems that should be tackled carefully in because they prevent healthy generations and countries today. Maintaining a healthy

lifestyle is crucial for pregnant women. The mean total HPLP score of the pregnant adolescents was 112.85 ± 5.79 and found to be at intermediate level in this study. In the Onat and Aba's study, the HPLP score of pregnant women was between the upper and intermediate levels (130.7 ± 20.0) (Onat & Aba, 2014). Another study found that the mean HPLP II score was 121.3 ± 21.0 in high risk pregnancies among Turkish women (Karaca Saydam et al., 2007). In Kavlak and her colleagues study (2013), the average HPLP score was low (Kavlak et al., 2013). A study was showed that the standardized total score of health promoting lifestyles was 66.88 (moderate level) in pregnant women (Lin et al., 2009). Studies indicate that the health behaviors of pregnant are not sufficient. When the studies conducted on non-pregnant, healthy adolescents are examined, in the study of Karadamar et al. (2014), the mean score of the HPLP of the female adolescents was 124.9 ± 19.1 (Karadamar et al., 2014). In the study of Dağdeviren and Şimşek (2013), the mean score of the HPLP of the adolescents was 118.4 ± 20.0 (Dağdeviren & Şimşek, 2013). In the study of Özyazıcıoğlu et al. (2011), the mean score of the HPLP of the adolescents was 128.97 ± 16.40 (Özyazıcıoğlu et al., 2011). Studies show that healthy lifestyle behaviors are not enough if the adolescent group is pregnant or not.

The subscales of the HPLP ranked in descending order as follows: self-actualization, health responsibility, interpersonal support, nutrition, stress management, physical activity in current study. In the study by Kavlak et al.'s study (2013), the sub-scales of the HPLP in descending order of standardized scores were as follows: nutrition, interpersonal relationships, self actualization, stress management, health responsibility and physical activity (Kavlak et al., 2013). In the Onat & Aba (2014) study, the score for physical activity was the lowest (14.4 ± 5.0), while the score for psychological well-being was the highest (26.1 ± 4.2). The other scores were 25.4 ± 4.2 , 22.9 ± 4.6 , 21.9 ± 4.0 , 19.9 ± 3.8 for interpersonal relationships, health responsibility, nutrition, and stress management, respectively (Onat & Aba, 2014). In the Lin et al. study (2009), the sub-scales of the HPLP II in descending order of standardized scores were: interpersonal relationships, health responsibility, spiritual growth, nutrition, stress management and physical activity (Lin et al., 2009). The study by Gharaibeh et al. (2005), the highest scores were measured for the health responsibility subscale, followed by self-actualization, interpersonal support, nutrition and stress management (Gharaibeh et al., 2005). Studies indicate that healthy lifestyle behaviors of adolescents are not sufficient. Our research results suggest that it is more important to develop healthy lifestyle behaviors in

adolescent pregnant women in this period. The present study showed that the pregnant adolescents obtained the highest mean scores from the self-actualization sub-scale. In studies when mean HPLP and sub-scales scores were evaluated, Aksungur et al. (2011), Karaahmetoğlu et al. (2014), Karadamar et al. (2014), showed that the highest scores were from self-actualization in adolescents (Aksungur et al., 2011; Karaahmetoğlu et al., 2014; Karadamar et al., 2014). The main motive that drives the behavior of the individual is the motivation to realize himself. We think that adolescents want to have an adequate personality, to be productive and to be creative.

The current study revealed that the pregnant adolescents achieved the lowest mean scores from the physical activity sub-scale. Onat & Aba's study (2014), the lowest score of the scale was found in the "physical activity" subgroup (14.4 ± 5.0) (Onat & Aba, 2014). Pregnant women may be encouraged to engage in moderately vigorous exercise most days of the week, unless the healthcare provider has identified a medical reason for preventing physical activity (Lucia et al., 2014). The American College of Obstetricians and Gynecologists (ACOG) suggested that exercising 30 minutes every day at a moderate pace may have many health benefits for pregnant women prevention or consist of treatment of gestational diabetes, increased stamina, improved sleep, and reduction of pregnancy symptoms such as backache, constipation, bloating, and edema (ACOG, 2020). Midwives and nurses who provide antenatal care should question and support the physical activities of pregnant adolescent. In the randomized controlled trial conducted by Aşçı and Rathfisch (2016) was found that the lifestyle intervention was developed healthy lifestyle of pregnant women, and advanced their the physical activity and nutritional behaviors (Aşçı & Rathfisch, 2016). In this study, the reasons why pregnant adolescents do not have physical activity. It can be due to the fact that the habits of regular exercise and sports that arise from our cultural structure are not enough. In this study, significant associations were not found between the HPLP with socio-demographic and obstetric characteristics of adolescent pregnancy ($p > 0.05$). Unlike our study were found significant relations between the health promotion scale and with age ($p < 0.001$), gender ($p < 0.003$), school grade ($p < 0.011$) in Musavian et al.'s study (Musavian et al., 2014).

Table 3.
Comparisons Of Socio-Demographic And Obstetric Characteristics And HPLP Total And Subscale Scores Of Pregnant Adolescents

Characteristics	Self-actualization	Health responsibility	Physical activity	Nutrition	Inter personal support	Stress management	Total HPLP
	Mean±SD	Mean±SD	Mean±SD	Mean±SD	Mean±SD	Mean±SD	Mean±SD
Age							
16	34.50±4.43	19.75±2.50	8.00±3.55	18.50±0.57	20.25±2.63	12.50±2.38	113.50±10.14
17	33.57±3.10	20.71±5.20	7.00±3.28	15.07±3.19	20.35±3.05	14.00±2.03	110.71±12.07
18	35.20±6.45	19.62±4.03	7.04±2.29	15.91±3.32	19.29±4.15	14.45±2.88	111.54±16.11
19	34.85±7.61	23.00±6.97	7.92±2.99	16.57±2.84	19.85±3.08	14.85±3.13	117.07±19.98
KW-H	0.578	1.666	2.750	5.350	0.858	2.775	0.671
<i>p</i>	0.901	0.644	0.432	0.148	0.835	0.428	0.835
Education							
Literate	34.00±5.14	21.06±6.18	7.93±3.39	16.53±4.03	19.06±2.76	13.80±3.18	112.40±18.36
Primary school	34.80±5.64	19.86±4.09	7.00±2.67	16.03±2.80	20.30±3.52	14.43±2.40	112.43±12.58
High school	35.18±7.84	22.72±6.26	7.36±2.20	15.45±2.58	19.27±4.33	14.63±3.00	114.63±20.89
KW-H	0.616	1.165	1.169	1.097	1.882	2.106	0.088
<i>p</i>	0.735	0.558	0.557	0.578	0.390	0.349	0.957
Incomestatus							
Income>expenditure	33.27±6.08	21.63±4.63	8.09±3.50	17.36±2.30	19.27±4.40	14.27±2.00	113.90±15.99
Income=expenditure	35.68±6.13	21.02±5.73	7.54±2.75	15.88±3.12	20.22±3.40	14.57±2.90	114.94±15.73
Income<expenditure	32.60±4.35	18.80±3.32	5.7±1.05	15.2±3.67	18.7±2.58	13.4±2.83	104.4± 14.41
KW-H	4.801	1.699	4.785	2.287	1.935	1.408	2.989
<i>p</i>	0.091	0.428	0.091	0.319	0.380	0.495	0.224
Health insurance							
Yes	34.82±5.73	26.61±4.52	7.31±2.58	15.97±2.95	20.08±3.38	14.44±2.53	113.27±13.67
No	33.77±7.06	21.44±8.17	7.33±3.84	16.44±4.06	18.11±3.82	13.55±3.67	110.66±25.17
MW-U	173.500	196.500	177.500	193.500	145.500	151.500	170.500
<i>p</i>	0.395	0.737	0.436	0.686	0.138	0.177	0.360
Family type							
Nuclearfamily	35.53±5.77	21.26±5.47	7.84±2.83	15.92±2.60	20.42±3.22	14.96±2.48	115.96±3.71
Extendedfamily	33.90±6.01	20.3±4.98	6.86±2.70	16.16±3.54	19.2±3.68	13.73±2.83	110.16±17.17
MW-U	303.500	337.500	294.500	368.500	303.000	276.000	297.500
<i>p</i>	0.154	0.386	0.107	0.722	0.150	0.59	0.128
Relative marriage							
Yes	36.30±5.83	22.23±4.34	6.53±3.04	16.76±2.24	21.23±3.11	14.23±2.55	117.30±13.94
No	34.16±5.90	25.3±5.38	7.55±2.69	15.83±3.33	19.32±3.52	14.32±2.80	111.51±16.22
MW-U	221.500	201.500	192.000	232.000	179.000	272.000	212.500
<i>p</i>	0.259	0.129	0.081	0.353	0.049	0.883	0.193
Living place							
Village	32.22±4.52	18.55±2.83	6.55±1.42	15.00±3.74	19.11±3.21	13.22±3.83	104.66±15.04
Town	36.07±7.49	21.14±5.37	6.78±2.25	16.35±2.73	21.00±4.29	13.64±2.89	115.00±19.65
Province	34.72±5.43	21.18±5.56	7.75±3.20	16.21±3.13	19.42±3.17	14.87±2.38	114.18±13.88
KW-H	2.854	1.626	0.724	0.470	2.349	3.819	2.228
<i>p</i>	0.240	0.444	0.696	0.791	0.309	0.148	0.328
Number of pregnancy							
1	34.81±6.29	20.69±5.53	7.09±2.49	16.06±3.20	19.58±3.69	14.48±2.84	112.74±16.99
2	34.15±4.59	20.92±4.03	8.07±3.59	16.00±2.94	20.38±2.78	13.69±2.28	113.23±11.51
MW-U	259.000	259.500	242.500	276.000	258.500	228.500	262.500
<i>p</i>	0.690	0.697	0.460	0.945	0.681	0.319	0.741
The planning status of pregnancy							
Planned	34.9±6.08	21.57±5.62	7.62±3.13	16.52±2.77	19.42±3.40	14.67±2.64	114.72±16.20
Unplanned	34.06±5.57	18. ±3.17	6.56±1.41	14.87±3.68	20.62±3.70	13.37±2.80	108.18±14.12
MW-U	267.500	235.500	293.500	253.000	244.500	210.000	251.000
<i>p</i>	0.340	0.124	0.621	0.221	0.168	0.44	0.211
Antenatal care frequency							
1-4	34.44±6.10	20.93±5.50	7.46±2.90	16.15±3.30	19.77±3.17	14.15±2.80	112.93±16.48
5 andabove	35.54±4.90	20.00±3.10	6.72±2.10	15.63±2.20	19.72±4.70	14.90±2.16	112.54±13.30
MW-U	226.000	234.500	215.500	214.500	237.000	203.500	244.000
<i>p</i>	0.657	0.788	0.498	0.493	0.827	0.360	0.942
Trimester of current pregnancy							
1.trimester	36.33±4.50	18.83±4.80	7.33±3.20	16.00±3.70	20.00±1.80	15.50±1.50	114.00±11.43
2.trimester	33.56±6.01	21.00±4.48	7.37±2.10	15.50±3.05	20.00±3.60	13.68±2.80	111.12±13.81
3.trimester	34.88±6.10	20.97±5.60	7.29±3.03	16.32±3.09	19.61±3.09	14.38±2.80	113.47±17.52
KW-H	1.209	0.707	0.521	0.588	0.100	3.115	0.095
<i>p</i>	0.546	0.702	0.771	0.745	0.951	0.211	0.954

In Onat and Aba's study (2014), there was a statistically significant relationship between the total HPLP II score and the level of education, economic status, employment status and family type ($p < 0.05$) (Onat & Aba, 2014). In Kavlak et al.'s study (2013), there was a statistically significant relationship between the total HPLP II score and the level of education, employment status, husband's education, family type, living environment, prenatal control, pregnancy planning, perception of social support, perception of support from husband ($p < 0.05$) (Kavlak et al., 2013). Considering the current results, our research result shows that healthy lifestyle behaviors of pregnant adolescents with different cultural, sociodemographic and obstetric structures differ from one society to another.

Conclusion and Recommendations

In this study, the mean total HPLP score of the pregnant adolescent found to be in moderate level. The current study revealed that the pregnant adolescents achieved the highest mean scores from the self-actualization sub-scale and the lowest mean scores from the physical activity sub-scale. Significant associations were not found between the HPLP with socio-demographic and obstetric characteristics of adolescent pregnancy. Adolescent pregnancies are an important problem that affects negatively youth, family, society. When women have children at an early age, it emerges as an handicap to the development their educational, social and economic status. Therefore, the most important thing to do is to prevent adolescent pregnancies. For a healthy society, the individual needs to give importance to protecting her health. The individual must have the necessary knowledge to maintain and maintain his / her own health. Nurses, midwives and other health professionals have important duties in the care of adolescent pregnant women, in their physical and psychological evaluation, in determining their care needs, in providing training and consultancy services. Health care professionals should teach antenatal follow-up and healthy lifestyle behaviors according to adolescent pregnancies. Additionally, support programs should be organized to ensure that adolescent pregnancies take responsibility for their own health.

Etik Komite Onayı: Bu çalışma için etik komite onayı Çukurova Üniversitesi'nden (Tarih: 3 Nisan 2015, Sayı: 2015/41-20) alınmıştır.

Hasta Onamı: Çalışmaya katılan ergenlerden onam alındı.

Hakem Değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Fikir – P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.; 2. Tasarım- P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.; 3. Veri Toplaması ve/veya işleme - P.K., S.K.Ç., E.V., Ö.A.; 4. Analysis and/or interpretation – E.N., S.K.Y.; 5. Literatür Taraması - P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.; 6. Yazıyı Yazan -

P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.; 7. Eleştirel inceleme - P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.

Çıkar Çatışması: Yazarlar, çıkar çatışması olmadığını beyan etmiştir.

Finansal Destek: Yazarlar, bu çalışma için finansal destek almadığını beyan etmiştir.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Cukurova University (Date: April3, 2015, Number: 2015/41-20).

Informed Consent: Consent was obtained from adolescents participating in the study.

Peer-review: Externally peer-reviewed.

Author Contributions: Conception – P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.; 2. Design - P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.; 3. Data collection and/or Processing - P.K., S.K.Ç., E.V., Ö.A.; 4. Analysis and/or interpretation – E.N., S.K.Y.; 5. Literature Review - P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.; 6. Writing - P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.; 7. Critical Review - P.K., E.N., S.K.Ç., E.V., Ö.A., F.Ö.

Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

References

- American College of Obstetrics and Gynecology [ACOG]. (2020). Physical activity and exercise during pregnancy and the postpartum period. *Obstetrics and Gynecology*, 135 (4), 178-88. <https://doi.org/10.1097/AOG.0000000000003772>
- Aksungur, A., Göktaş, B., Önder, Ö. R., & Cankul, İ. H. (2011). Assessment of healthy living behaviors of students. *Ankara Journal of Health Services*, 10 (1), 1-11.
- Aşçı, Ö., & Rathfisch, G. (2016). Effect of lifestyle interventions of pregnant women on their dietary habits, lifestyle behaviours, and weight gain: a randomized controlled trial. *Journal of Health, Population and Nutrition*, 7(35), 1-9. <https://doi.org/10.1186/s41043-016-0044-2>
- Aydın, D. (2013). Adolescence pregnancy and adolescence motherhood. *Anatolian Journal of Nursing and Health Sciences*, 16(4), 250-254.
- Bozhüyük, A., Özcan, S., Kurdak, H., Akpınar, E., Saatçi, E., & Bozdemir, N. (2012). Healthy life style and family medicine. *Turkish Journal of Family Medicine and Primary Care*, 6(1), 13-21.
- Cihangiroğlu, Z., & Deveci, S. E. (2011). Firat University Elazığ Healthy lifestyle behaviors and affecting factors of health school students. *Firat Medical Journal*, 16(2), 78-83.
- Coşkun, M. (2016). The effects of social support level perceived during pregnancy on healthy lifestyle behaviours. Unpublished master thesis. Koç University, Turkey.
- Dağdeviren, Z., & Şimşek, Z. (2013). Health promotion behaviors and related factors of high school students in Şanlıurfa. *TAF Prev Med Bull*, 12(2), 135-142. <https://doi.org/10.5455/pmb.1343653881>

- Dil, S., Şentürk, S. G., & Girgin, B. A. (2015). Relationship between risky health behaviours and some demographic characteristics of adolescents' self-esteem and healthy lifestyle behaviours in Çankırı. *Anatolia Psychiatry Journal*, 16 (1), 51-59. <https://doi.org/10.5455/apd.151320>
- Esin, M. N. (1999). Turkish adaptation of the scale of healthy lifestyle behaviours. *Nursing Bulletin*, 12, 87-96.
- Gharaibeh, M., Al-Ma'aitah, R., & Al Jada N. (2005). Lifestyle practices of Jordanian pregnant women. *Int Nurs Rev*, 52(2), 92-100. <https://doi.org/10.1111/j.1466-7657.2005.00257.x>
- Hargreaves, D., Mates, E., Menon, P., Alderman, H., Devakumar, D., Fawzi, W., Greenfield, G., Hammoudeh, W., He, S., Lahiri, A., Liu, Z., Nguyen, P. H., Sethi, V., Wang, H., Neufeld, L. M., & Patton, G. C. (2022). Strategies and interventions for healthy adolescent growth, nutrition, and development. *Lancet*, 399 (10320), 198–210. [https://doi.org/10.1016/s0140-6736\(21\)01593-2](https://doi.org/10.1016/s0140-6736(21)01593-2)
- Havlioğlu, S., & Koruk, İ. (2013). The quality of life and problematic behaviours among adolescent migrant seasonal farm workers. *Turkish Public Health Journal*, 11(1), 11-22. <https://doi.org/10.20518/tjph.173073>
- İlhan, N., Batmaz, M., & Akhan, L. U. (2010). Healthy lifestyle behaviors of university students. *Maltepe University Nursing Science and Art Review*, 3(3), 34-44.
- Kara Uzun, A., & Şimşek Orhon, F. (2013). Influences of adolescent pregnancy on maternal and infant health. *Ankara University Faculty of Medicine Magazine*, 66(1), 19-24. https://doi.org/10.1501/Tıpfak_000000836
- Karaahmetoğlu, G., Soğuksu, S., & Softa, H. K. (2014). Nursing investigating healthy life style behaviours of first and fourth year nursing students and affecting factors. *Erciyes University Medical Science Journal*, 2(2), 26-42.
- Karadamar, M., Yiğit, R., & Sungur, M. A. (2014). Evaluation of healthy lifestyle behaviours in adolescents. *Anatolian Journal of Nursing and Health Sciences*, 17(3), 131-139.
- Karaca Saydam, B., Bozkurt, O. D., Hadımlı, A. P., Can, H. O., & Soğukpınar, N. (2007). Evaluation of the effects of self-care capacity on healthy life style behaviors in risky pregnant. *Perinatal Journal*, 15(3), 131-139.
- Kavlak, O., Atan, S. U., Şirin, A., Şen, E., Güneri, S. E., & Dağ, H. Y. (2013). Pregnant Turkish women with low income: Their anxiety, health-promoting lifestyles, and related factors. *International Journal of Nursing Practice*, 19 (5), 507-515. <https://doi.org/10.1111/ijn.12093>
- Kostak, M. A., Kurt, S., Süt, N., Akarsu, Ö., & Ergül, G. D. (2014). Healthy lifestyle behaviors of nursing and classroom teaching students. *TAF Prev Med Bull* 13(3), 189-196. <https://doi.org/10.5455/pmb.1-1362174271>
- Lin, Y. H., Tsai, E. M., Chan, T. F., Chou, F. H., & Lin, Y. L. (2009). Health promoting lifestyles and related factors in pregnant women. *Chang Gung Med J*, 32(6), 650-661.
- Lucia, L., Kaiser Christina, G., & Campbell, C. (2014). Nutrition and lifestyle for a healthy pregnancy outcome. Practice Paper of the Academy of Nutrition and Dietetics, 114 (9), 1447. <http://dx.doi.org/10.1016/j.jand.2014.07.001>
- Musavian, A. S., Pasha, A., Rahebi, S-M., Roushan, Z. A., & Ghanbari, A. (2014). Health promoting Behaviors Among Adolescents: A Cross-sectional study. *Nurs Midwifery Stud*, 3(1), e14560. <https://doi.org/10.17795/nmsjournal14560>
- Onat, G., & Aba, Y. A. (2014). Health-promoting lifestyles and related factors among pregnant women. *Turk J Public Health*, 12(2), 69-79. <https://doi.org/10.20518/thsd.69694>
- Özdemir, F., Nazik, E., & Pasinlioğlu, T. (2010). Determination of the motherly reactions to adolescents experience of menarche. *J Pediatr Adolesc Gynecol*, 24 (11), 21-24. <https://doi.org/10.1016/j.jpag.2009.09.001>
- Özyazicioğlu, N., Kılıç, M., Erdem, N., Yavuz, C., & Afacan, S. (2011). Determinants of nursing students' healthy life style. *International Journal of Human Sciences*, 8(2), 277-290.
- Şimşek, H., Öztoprak, D., İkizoğlu, E., Safalı, F., Yavuz, Ö., & Onur, Ö. (2012). Healthy lifestyle behaviours and related factors of medical school students. *Deu Med J*, 26(3), 151-157.
- Turkey Demographic and Health Survey [TDHS]. (2018). (2018, May 15). Hacettepe University Institute of Population Studies. Ankara, Turkey. http://www.hips.hacettepe.edu.tr/TNSA2018_Results/presentation2122014.pdf
- World Health Organization [WHO]. (2023). (2023, September 2). Global health estimates 2019: deaths by cause, age, sex, by country and by region, 2000–2019. Geneva: WHO; 2023. https://www.who.int/healthinfo/global_burden_disease/estimates/en/index1.html
- World Health Organization [WHO]. (2020). (2018, May 15). World health statistics 2020: monitoring health for the SDGs, sustainable development goals. https://www.who.int/gho/publications/world_health_statistics/2020/en/

Genişletilmiş Özet

Adölesan olarak adlandırılan çocukluk ile yetişkinlik arasındaki dönem, bireyin hayata hazırlanmaya başladığı evredir. Bu dönemde birçok psikolojik ve fizyolojik değişiklik meydana gelebilir. Dünya Sağlık Örgütü 10-19 yaşlar arasını adölesan olarak kabul etmektedir. Küresel olarak son veriler yaklaşık olarak 6 kişiden 1'inin adölesan olduğunu ve dünyada 1.2 milyar adölesanın yaşadığını bildirmektedir. Her yıl 15 ile 19 yaşlar arasındaki yaklaşık olarak 16 milyon kız çocuğu ve 15 yaşın altındaki yaklaşık olarak 1 milyon kız çocuğu doğum yapmakta olup, bu doğumların çoğu düşük ve orta gelirli ülkelerde gerçekleşmektedir. Türkiye'de nüfusun %16'sı adölesan olup, gebeliklerin %7'si adölesan yaşta olmakta ve bu gebeliklerin %4'ü adölesan annelikle sonuçlanmaktadır. Adölesan gebelikler tüm dünyada halen önemli bir halk sağlığı sorunu olarak dikkat çekmektedir. Adölesan dönmedeki kızların gebelik gelişiminde rol oynayan birçok sosyal ve kişisel risk faktörü bulunmaktadır. Bu gebelikler, kısa ve uzun dönemde anne ve bebek sağlığı üzerinde olumsuz sonuçlara yol açabilecek riskli gebeliklerdir. EAdölesan anneler (10-19 yaş arası), 20 ila 24 yaş arası kadınlara göre daha yüksek eklampsi, postpartum endometrit ve sistemik enfeksiyon riskleriyle; ayrıca ergen annelerin bebekleri de daha yüksek düşük doğum ağırlığı, erken doğum ve ciddi yenidoğan sorunları riskleriyle karşı karşıyadır. Öte yandan gebelik ve doğum sırasındaki komplikasyonlar, dünya çapında 15-19 yaşındaki kız çocukları için önde gelen ölüm nedenidir. Adölesan gebeik, daha az eğitilmiş veya ekonomik durumu düşük olanlarda daha yüksek olma eğilimindedir. Bu gerçekler göz önüne alındığında adölesan gebelerin sağlıklı bir yaşam sürdürebilmeleri için sağlıklı yaşam biçimi davranışlarının önemi ortaya çıkmaktadır. Sağlıklı yaşam biçimi, bireyin sağlığını etkileyebilecek tüm davranışlarının kontrol altına alınması, sağlık durumuna uygun davranışların seçilmesi ve bu davranışların alışkanlık haline getirilmesi olarak tanımlanmaktadır. Sağlıklı yaşam tarzı davranışları; yeterli ve düzenli egzersiz, dengeli beslenme, sigara içmeme, sağlık bakımı, stres yönetimi ve hijyen önlemlerini içermektedir. En yaygın riskli sağlık davranışları arasında sigara, alkol ve madde kullanımı, sağlıksız beslenme davranışı, intihar, yetersiz fiziksel aktivite, şiddet içeren davranışlar, cinsel yolla bulaşan hastalıklar yer almaktadır. Daha nadir olarak ise sağlıksız kilo kontrolü, aileyle iletişim sorunları, stres yönetimi, diş fırçalama olarak sıralanmaktadır. Olumlu sağlık davranışlarının teşvik edilmesi ve sağlıklı yaşam tarzının benimsenmesi, sağlığın teşviki ve hastalıkların önlenmesinde kilit rol oynamaktadır. Sağlıklı yaşam biçimi davranışları genellikle ergenlik döneminde kazanılmaktadır veya yeniden şekillendirilmektedir. Adölesan dönem; geçiş, keşfetme ve değişime açıklık ile karakterize edilmektedir ve bu evre diyet, fiziksel aktivite ve bulaşıcı olmayan hastalıklara yönelik diğer risklerde radikal değişiklikler için fırsatlar sunmaktadır. Aynı yenilik arayışı ve değişime açıklık, aynı zamanda adölesanları ticari sömürüye ve diğer sağlıksız etkilere karşı, yaşam boyu ve nesiller arası sonuçları olan savunmasız bir grup haline de getirmektedir. Adölesanlar, özellikle gebelik, sigara ve alkol kullanımı gibi olumsuz sağlık davranışları açısından risk altındadır.

Sağlığı teşvik eden bir yaşam tarzı, sağlıklı doğumlarla doğrudan bağlantısı ve düşük maternal-fetal ölüm ve hastalık oranları nedeniyle gebelik sırasında özellikle önemli bir role sahiptir. Gebe kadınların yaşam tarzları ve davranışları bebeklerini etkilemektedir. Bu çalışmanın amacı adölesan gebelerde sağlıklı yaşam biçimi davranışlarını ve etkileyen faktörleri değerlendirmektir.

Tanımlayıcı ve kesitsel tipteki çalışma 56 adölesan gebeyle yapılmıştır. Araştırma verileri "Kişisel Bilgi Formu" ve "Sağlıklı Yaşam Biçimi Davranışları Ölçeği (SYBDÖ)" kullanılarak toplanmıştır. Verilerin tamamında istatistiksel önem düzeyi $p < 0.05$ olarak tanımlanmıştır.

Gebelerin %42,9'u 18 yaşında olup, %26,8'i kendi isteği dışında evlenmiştir ve neredeyse yarısı (%53,6) ilkökul mezunudur. Adölesan gebelerin eşlerinin %64,3'ü 18-24 yaş aralığında olup, %48,2'si ilkökul mezunudur. Katılımcıların yüzde 62,5'inin gelirlerinin giderlerine eşit olduğu ve yüzde 83,9'unun sosyal güvencesinin olduğu belirlenmiştir. Adölesan gebelerin %23,2'si akraba evliliği yaptığını, %53,6'sının geniş ailede ve %58,9'unun köyde yaşadığını bildirmiştir. Adölesan gebelerin %76,8'inin ilk gebeliklerini yaşadığı, %71,4'ünün gebeliğini planladığı ve %63,1'inin üçüncü trimesterde olduğu belirlenmiştir. Adölesan gebelerin %81,3'ü doğum öncesi bakım almıştır (Tablo 1).

Adölesan gebelerin toplam SYBDÖ ortalama puanı 112.85 ± 15.79 olarak bulunmuştur. SYBDÖ altboyutları toplam puan ortalamaları sırasıyla 34.66 ± 5.90 (kendini gerçekleştirme), 20.75 ± 5.19 (sağlık sorumluluğu), 7.32 ± 2.78 (fiziksel aktivite), 16.05 ± 3.11 (beslenme), 19.76 ± 3.50 (kişilerarası destek) ve 14.30 ± 2.72 (stres yönetimi) saptanmıştır. Araştırmaya katılan adölesan gebelerin sosyo-demografik ve obstetrik özellikleri ile SYBDÖ arasında istatistiksel olarak önemli bir ilişki olmadığı tespit edilmiştir ($p > 0.05$).

Bu çalışmada adölesan gebelerin sağlıklı yaşam biçimi davranışlarının yetersiz olduğu belirlenmiştir. Araştırmada adölesan gebelerin en yüksek sağlıklı yaşam biçimi davranışını kendini gerçekleştirme, en düşük ise fiziksel aktivite

boyutundan gösterdikleri ortaya çıkmıştır. Sağlıklı yaşam biçimi davranışları ile adölesan gebelerin sosyo-demografik ve obstetrik özelliklerinin ilişkili olmadığı sonucuna ulaşılmıştır.

Adölesan gebelikler gençleri, aileyi ve toplumu olumsuz etkileyen önemli bir sorundur. Kadınların erken yaşta çocuk sahibi olmaları eğitimsel, sosyal ve ekonomik durumlarının gelişmesinde bir engel olarak ortaya çıkmaktadır. Bu nedenle olması beklenen en önemli sağlık yaşam tarzı müdahalesi adölesan gebeliklerin önlenmesidir. Sağlıklı bir toplum için bireyin sağlığını korumaya önem vermesi gerekmektedir. Bireyin kendi sağlığını koruyabilmesi ve sürdürebilmesi için gerekli bilgiye sahip olması önem taşımaktadır. Adölesan gebelerin bakımında, fiziksel ve psikolojik olarak değerlendirilmesinde, bakım ihtiyaçlarının belirlenmesinde, eğitim ve danışmanlık hizmetlerinin verilmesinde hemşire, ebe ve diğer sağlık profesyonellerine önemli görevler düşmektedir. Sağlık profesyonellerinin adölesan gebeliklere göre doğum öncesi takip ve sağlıklı yaşam tarzı davranışlarını öğretmeleri gerekmektedir. Ayrıca adölesan gebeliklerin kendi sağlıklarının sorumluluğunu almalarını sağlayacak destek programları düzenlenmelidir.