



Original Research / Orijinal Araştırma

Assessment Of Health Literacy And Use Of Contraceptive Methods İn Married Women Aged 18 To 49 Years

18-49 Yaş Grubu Evli Kadınlarda Sağlık Okuryazarlığı Ve Kontraseptif Yöntem Kullanma Durumunun Değerlendirilmesi

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Abstract

Objective: To determine the level of health literacy and assess contraceptive use in married women.

Methods: From August 2020 to October 2020, a cross-sectional survey was conducted among married women aged 18 years and older residing in various regions across Turkey. The survey targeted this demographic via an online questionnaire, carefully crafted by existing literature and aligned with the study's aims. The study cohort consisted of 1024 married women who voluntarily participated in the research.

Results: The study group included women between the ages of 18 and 49, with a mean age of 32.74 years and a standard deviation of 6.85. Scores on the European Health Literacy Survey Questionnaire spanned from 1.11 to 50.0, with a central score at the median of 34.38. Health literacy was found to be lower in those aged 35 years and above, those who graduated from primary school, those who have been married for 20 years or more, those who had given birth 3 times or more, those with 2 and more living children and those with a history of stillbirth. While no significant relationship was found between the use of contraceptive methods and health literacy, health literacy was determined to be higher among women who stated that they would prefer a modern method if they had to use a contraceptive method again.

Conclusion: It can be suggested that married women had moderate health literacy. Preference for modern contraceptive methods can be encouraged through informative activities to improve the health literacy of women.

Keywords: women, contraceptive methods, health literacy

Özet

Amaç: Evli kadınların sağlık okuryazarlık düzeylerinin belirlenmesi ve kontraseptif yöntem kullanma durumlarının değerlendirilmesidir.

Gereç ve yöntem: Çalışma, Ağustos 2020-Ekim 2020 tarihleri arasında Türkiye'nin tüm coğrafi bölgelerinde yaşayan 18 yaş ve üstü evli kadınlar üzerinde yapılan kesitsel tipte bir araştırmadır. Çalışmanın amacına uygun olarak literatürden de faydalanılarak hazırlanmış olan bir anket form, çevrimiçi ortama aktararak hedef kitleye ulaşması sağlanmıştır. Çalışmaya katılmayı kabul eden 1024 evli kadın çalışma grubunu oluşturmuştur.

Bulgular: Çalışma grubundakilerin yaşları 18-49 arasında değişmekte olup, ortalama 32.74±6.85 yıl idi. Kadınların Avrupa Sağlık Okuryazarlığı Ölçeğinden aldıkları puanlar 1.11-50.0 arasında değişmekte olup, ortanca puan 34.38 dir. Kadınlardan 35 yaş ve üzerinde olanların, ilköğretim mezunu olanların, evlilik süresi 20 yıl ve üzerinde olanların, doğum sayısı 3 ve üzeri olanların, yaşayan çocuk sayısı 2 ve üzeri olanların ve ölü doğum öyküsü olanların sağlık okuryazarlık düzeyleri düşük olarak bulunmuştur. Kontraseptif yöntem kullanma durumu ile sağlık okuryazarlık düzeyi arasında anlamlı bir ilişki bulunamazken, bir daha kontraseptif yöntem kullanması gerekirse modern bir yöntem tercih edeceğini bildirenlerin sağlık okuryazarlık düzeyinin daha yüksek olduğu bulunmuştur.

Sonuç: Evli kadınların sağlık okuryazarlıklarının orta düzeyde olduğu söylenebilir. Kadınların sağlık okuryazarlık düzeylerinin artırılması için bilgilendirme çalışmaları yapılarak modern kontraseptif yöntem kullanma tercihleri artırılabilir.

Anahtar kelimeler: kadın, kontraseptif yöntem, sağlık okuryazarlığı

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Introduction

The unchecked expansion of populations places a substantial strain on the resource capacities of numerous developing nations. Approximately 75% of the global populace resides in these developing regions, marked by elevated fertility rates alongside heightened maternal and infant mortality rates. It is anticipated that the world's population could surge to 9.2 billion individuals by the year 2050.¹ Prevention of unwanted pregnancies helps to improve the health of the mother and reduce pregnancy-related mortality. Delaying pregnancy in young girls at high risk of health issues due to early childbearing and prevention of pregnancy in older women facing high risks are important advantages of family planning.^{2,3}

Based on the Turkish Statistical Institute's (TUIK) 2019 data, the total fertility rate for Turkey is 1.88 children per woman. The age group of 25-29 years exhibited the highest age-specific fertility rate. Turkey's total fertility rate is higher than the total fertility rate of 28 EU member states. When the total fertility rates of 28 EU member states are examined, France had the highest total fertility rate with 1.88 children whereas Malta had the lowest total fertility rate with 1.23 children in 2018.⁴ It is also estimated that all women as well as almost all married women know at least one birth control method. 97% of all women and 99% of all married women stated that they knew any modern birth control method.

It is believed that the behaviors of individuals about family planning are important to increase the success of family planning activities in Turkey.⁵ Information should be obtained about the attitudes of women about family planning and the reasons for not using contraceptives should be determined. It is known that the beliefs of individuals as well as their inaccurate knowledge and practices are among the factors affecting the use of family planning methods.⁶ Therefore, individuals' use of family planning methods and beliefs about these methods should be determined for the provision of an efficient family planning service by healthcare professionals, and qualified training and consulting services this will allow individuals to develop positive attitudes towards the use of family planning methods should be provided.^{6,7} In this regard, awareness about women's family planning attitudes and factors affecting these attitudes may help nurses plan and provide an efficient family planning consultation.⁸

Health literacy, as defined by the World Health Organization, pertains to the cognitive and social competencies that influence an individual's motivation and capacity to acquire, comprehend, and apply information in manners that support and uphold good health. Data gathered from numerous developed nations indicate that individuals with limited health literacy face challenges in accessing health-related information and tend to utilize healthcare services to a lesser extent. Furthermore, low health literacy often correlates with lower socioeconomic status, which, in turn, has adverse effects on health.^{9,10}

Although almost all women in Turkey know birth control methods, their use of modern methods is not at the desired level. Therefore, the rate of unplanned and unwanted pregnancies is still very high. Women's failure to use modern methods despite their awareness of them may be related to their attitudes towards these methods. Women's negative attitudes toward modern methods may affect their use of such methods. The purpose of this study was to evaluate the health literacy levels among married women, examine potential related factors, and gauge the utilization of contraceptive methods.

Methods

Participants

This is a cross-sectional study conducted on married women aged 18 years and above from all geographical regions of Turkey from August 2020 to October 2020. The Target group was reached online through a questionnaire that was prepared based on literature in line with the study's objective. The women from all geographical regions of Turkey who are married, aged 18 years and above, and use social media (WhatsApp, Instagram, Facebook) were determined as the target group in our study. The minimum number of women targeted to be reached (quota sample) was 1.000 in our study and when we reached 1.024 women who agreed to take part in the study, we stopped collecting data.

Data collection

The survey questionnaire, developed in alignment with the study's objectives and drawing from pertinent literature sources^{5,7,11}, encompassed various socio-economic aspects of women (including age, educational background, employment status, family structure, income status, history of chronic illnesses requiring ongoing medication, and any prior gynecological conditions necessitating treatment). It also collected data on marriage and obstetric factors, such as age at first marriage, age at first childbirth, total number of pregnancies, childbirths, living children, stillbirths, and abortions. Additionally, the questionnaire inquired about the knowledge, usage, awareness, and preference for contraceptive methods, alongside incorporating items from the European Health Literacy Survey Questionnaire.

Ethical considerations

The approval of a university's Ethics Committee for Researches Other Than Drugs and Medical Devices was obtained with the resolution dated 27.05.2020 with number 41901325-050.99 to conduct the study.

Data analysis

In this research, we gathered information from women regarding their awareness of contraceptive methods, the methods they currently use, their knowledge about these methods, and their preferences for future contraceptive choices.

We measured the health literacy of the women in our study using the Short Form of the European Health Literacy Survey Questionnaire. This questionnaire was originally developed by the European Health Literacy Project Consortium in 2012¹² and was validated for use in Turkey by Emiral et al. in 2018¹³. The survey comprises 16 questions, each rated on a 5-point Likert scale with scores ranging from 0 to 4. To calculate the total score, we utilized a standardized index score formula: Index score = (average - 1) * (50/3). The resulting index score ranges from 0 to 50, with higher scores indicating higher health literacy levels.

Participants self-assessed their family income as either low, medium, or high based on their perceptions. Data analysis was performed using the SPSS Statistical Package Software. We conducted the Shapiro-Wilk test to check for normal data distribution and utilized the Mann-Whitney U test and Kruskal-Wallis test for our analyses. We did not provide specific results as the multiple linear regression analysis did not yield a suitable model. Our chosen level of statistical significance was $p \leq 0.05$.

Results

The women in our study encompassed an age range spanning from 18 to 49, with an average age of 32.74 years and a standard deviation of 6.85. Notably, a significant portion of the participants (53.8%) fell within the age bracket of 25-34 years. Regarding the results from the European Health Literacy Survey Questionnaire, the scores assigned by the women in our study exhibited a wide spectrum, ranging from 1.11 to 50.0, with a central score at the median value of 34.38. You can find a breakdown of these scores based on various socio-demographic characteristics in Table 1.

Table 1. The distribution of the scores obtained by the women in the study group from the European Health Literacy Survey Questionnaire by some socio-demographic characteristics

Socio-demographic characteristics	n (%)	European Health Literacy Survey Questionnaire Score	Test value
		Median (min-max)	z/KW; p*
Age group			
18-24	102 (10.0)	35.5 (11.5-50.0)	15.876; 0.001
25-29	272 (26.6)	35.4 (14.6-50.0)	
30-34	279 (27.2)	35.4 (1.1-50.0)	
35 and above	371 (36.2)	33.3 (16.7-50.0)	
Educational status			
Primary education	138 (13.5)	33.3 (17.7-50.0)	19.661; 0.000
High school	247 (24.1)	34.4 (18.9-50.0)	
University	538 (52.5)	34.4 (1.1-50.0)	
Postgraduate	101 (9.9)	35.4 (21.9-50.0)	
Working status			
Working	493 (48.1)	34.4 (14.6-50)	0.539; 0.590
Not working	531 (51.9)	34.4 (1.1-50)	
Family income status			
Low	17 (1.7)	35.6 (16.7-50.0)	3.978; 0.137
Average	604 (59.0)	34.4 (1.1-50.0)	
High	403 (39.4)	34.4 (14.6-50.0)	
Family type			
Nucleus	916 (89.5)	34.4 (1.1-50.0)	1.024; 0.912
Extended	92 (9.0)	34.4 (14.6-50.0)	
Divorced family	16 (1.6)	35.1 (16.7-50.0)	
History of a disease requiring constant drug use			
No	846 (82.6)	34.4 (11.5-50.0)	0.278; 0.781
Yes	178 (17.4)	34.4 (1.1-50.0)	
History of any gynecologic disorder requiring treatment			
No	831 (81.2)	34.4 (11.5-50.0)	0.570; 0.569
Yes	193 (18.8)	34.6 (1.1-50.0)	
Total	1024 (100.0)	34.4 (1.1-50.0)	

* Mann-Whitney U and the Kruskal-Wallis tests

The first marriage age of the women ranged from 16 to 40 years with a mean age of 23.40 ± 3.84 years and their age at first birth ranged from 18 to 42 years with a mean age of 25.15 ± 4.19 years. Their length of marriage was between 0 and 33 years with an average of 9.34 ± 7.23 years. 100 women (9.8%) had 0 pregnancies before and 146 (14.3%) had 0 childbirth. The distribution of the scores obtained by the women in the study group from the European Health Literacy Survey Questionnaire by some characteristics related to marriage, pregnancy, and childbirth is given in Table 2.

Table 2. The distribution of the scores obtained by the women in the study group from the European Health Literacy Survey Questionnaire by some characteristics related to marriage, pregnancy, and childbirth

Some characteristics related to marriage, pregnancy and childbirth	n (%)	European Health Literacy Survey Questionnaire Score	Test value z/KW; p*
		Median (min-max)	
First marriage age			
19≤	182 (17.8)	33.3 (17.7-50.0)	1.024; 0.352
20-24	357 (34.9)	34.4 (11.5-50.0)	
25-29	430 (42.0)	34.4 (1.1-50.0)	
≥30	55 (5.4)	35.4 (16.7-50.0)	
Length of marriage			
4≤	318 (31.1)	35.4 (11.5-50.0)	20.039; 0.000
5-9	310 (30.3)	35.4 (1.1-50.0)	
10-14	168 (16.4)	33.3 (19.8-50.0)	
15-19	96 (9.4)	33.3 (21.9-50.0)	
≥20	132 (12.9)	33.3 (17.7-50.0)	
Age at first birth (892 women who gave birth)			
19≤	80 (7.8)	33.3 (23.1-50.0)	4.344; 0.227
20-24	321 (31.3)	33.3 (14.6-50.0)	
25-29	368 (35.9)	34.4 (1.1-50.0)	
≥30	123 (12.0)	35.4 (19.8-50.0)	
Number of pregnancy			
0	100 (9.8)	35.4 (11.5-50.0)	2.588; 0.460
1	333 (32.5)	34.5 (1.1-50.0)	
2	304 (29.7)	34.4 (18.8-50.0)	
3 and above	287 (28.0)	33.3 (14.6-50.0)	
Number of childbirth			
0	146 (14.3)	35.4 (11.5-50.0)	10.319; 0.016
1	376 (36.7)	35.4 (1.1-50.0)	
2	345 (33.7)	33.3 (14.6-50.0)	
3 and above	157 (15.3)	33.3 (24.0-50.0)	
Number of living children			
0	146 (14.3)	35.6 (11.5-50.0)	12.203, 0.007
1	376 (36.7)	35.4 (1.1-50.0)	
2	346 (33.8)	33.3 (14.6-50.0)	
3 and above	156 (15.2)	33.3 (24.0-50.0)	
History of miscarriage			
No	842 (82.2)	34.4 (1.1-50.0)	1.204; 0.228
Yes	182 (17.8)	34.6 (14.6-50.0)	
History of abortion			
No	888 (86.7)	34.4 (1.1-50.0)	0.027; 0.978
Yes	136 (13.3)	34.4 (17.7-50.0)	
History of stillbirth			
No	992 (96.9)	34.4 (1.1-50.0)	2.627; 0.009
Yes	32 (3.1)	33.3 (22.9-47.9)	
Total	1024 (100.0)	34.4 (1.1-50.0)	

*Mann-Whitney U and the Kruskal-Wallis tests

38 women (3.7%) stated that they do not know any contraceptive method. The most known contraceptive method in the study group was oral contraceptives (17.1%) and the least known one was vasectomy (4.5%). The distribution of contraceptive methods known by the women is given in Table 3.

Table 3. *The distribution of contraceptive methods known by the women in the study group*

Known contraceptive methods	n	%
Oral contraceptives	891	17.1
Intrauterine device	601	11.5
Condom	802	15.4
Withdrawal	724	13.9
Depo-Provera injection	683	13.1
Breast-feeding	420	8.0
Calendar method	416	8.0
Vasectomy	237	4.5
Tubal ligation	445	8.5
Total	5219	100.0

*Numbers are based on known methods, not individuals.

237 women (23.1%) in the study group stated that they do not use any contraceptive method. The most used contraceptive method was a condom (50.8%) and the least used one was the calendar method (0.4%). The distribution of contraceptive methods used by the women is given in Table 4.

Table 4. *The distribution of contraceptive methods used by the women in the study group*

Used contraceptive methods	n	%
Oral contraceptives	53	6.7
Intrauterine device	94	11.9
Condom	399	50.8
Withdrawal	189	24.0
Depo-Provera injection	4	0.5
Breast-feeding	7	0.9
Calendar method	3	0.4
Tubal ligation	38	4.8
Total	787	100.0

339 women (33.1%) stated that they have not been informed about the contraceptive method they use. Of the women who have been informed about the contraceptive method they use, 57.8% reported healthcare professionals as their source of information. The sources of information about contraceptive methods used by the women are given in Table 5.

Table 5. *Sources of information about contraceptive methods used by the women in the study group*

Sources of information	n	%
Healthcare professionals	396	57.8
Internet / TV / Brochures etc.	124	18.1
Inner circle / Friends	71	10.4
Other	94	13.7
Total	685	100.0

The number of women who do not know which method they will use if they need to use a contraceptive method again was 153 (15.0%). 21.7% of the women stated that they would use an IUD and 21.7% stated that they would

use tubal ligation if they needed to use a contraceptive method again. The distribution of the contraceptive methods to be preferred if needed again is given in Table 6.

Table 6. Contraceptive methods to be preferred by the women in the study group if needed again

Contraceptive methods are preferred	n	%
Oral contraceptives	41	4.0
Intrauterine device	222	21.7
Condom	193	18.8
Withdrawal	79	7.7
Depo-Provera injection	43	4.2
Vasectomy	5	0.5
Tubal ligation	222	21.7
2 methods	66	6.4
She does not know	153	15.0
Total	1024	100.0

Of the women in the study group, 237 women (23.1%) stated that they do not use any contraceptive method, 588 women (57.5%) stated that they use a modern method and 199 women (19.4%) stated that they use a traditional method. The distribution of the scores obtained by the women from the European Health Literacy Survey Questionnaire by the use of contraceptive methods and methods to be preferred later is given in Table 7.

Table 7. The distribution of scores obtained by the women in the study group from the European Health Literacy Survey Questionnaire by the use of contraceptive methods and methods to be preferred later

Use of contraceptive methods and preference	n (%)	European Health Literacy Survey Questionnaire Score	Test value
		Median (min-max)	z/KW; p*
Use of contraceptive methods			
None	237 (23.1)	34.5 (16.7-50.0)	0.691; 0.708
Modern method	588 (57.5)	34.4 (1.1-50.0)	
Traditional method	199 (19.4)	34.4 (18.8-50.0)	
Contraceptive method to be preferred if needed again			
She does not know	153 (14.9)	33.3 (11.5-50.0)	15.680; 0.000
Modern method	751 (73.3)	34.5 (1.1-50.0)	
Traditional method	120 (11.7)	34.4 (18.8-50.0)	
Total	1024 (100.0)	34.4 (1.1-50.0)	

*Mann-Whitney U and the Kruskal-Wallis tests

Discussion

Based on the scores obtained from the European Health Literacy Survey Questionnaire, it appears that the women participating in this study possess a moderate level of health literacy.⁹ This aligns with findings from a study by Thongnopakun et al., which investigated health literacy related to behaviors aimed at preventing unintended pregnancy and found that young women exhibited low health literacy in this regard. In addition, a separate study conducted among a similar population, college students, found that their sexual and reproductive health literacy was also low.¹⁴

In our study, the women aged 35 years and older had lower health literacy than other age groups. In a similar study conducted in Senegal, it was determined that the use of modern contraceptive methods and health literacy were low in older women compared to young women.¹⁵ Other studies also found that health literacy reduces with advancing age and married women are less likely to use contraceptive methods.^{16,17}

Women who graduated from primary school had lower health literacy than other women in the study group. Similarly, some studies reported a decrease in health literacy with lower educational status. Also, the use of modern contraceptives decreases with lower educational status.^{18,19} Therefore, women with low educational status need more family planning consultancy.^{20,21}

In our study, there was no difference between health literacy and women's working status, family income status, and family type ($p > 0.05$ for each). However, some studies reported that women with extended family and low income living in the countryside have low health literacy and their use of contraceptives is lower accordingly.^{22,23}

There was no relationship between the first marriage age and the health literacy of the women in our study. It was determined that there was no relationship between health literacy and age at first birth of the women who had given

birth before. However, women who have been married for 20 years or more have lower health literacy. On the other hand, a study found that women who have been married for a long time and were older than 45 years had a medium level of health literacy and a high level of contraceptive use.²⁴

Health literacy of women who have given birth 3 times or more had lower health literacy than those who have given birth once and who have not given birth before. Again, women who have 2 or more living children had lower health literacy. In a study, it was shown that women have a more positive attitude towards contraceptive methods when the number of childbirth and living children increases.⁷ However, some studies reported that although women have a positive attitude towards contraceptive methods, their health literacy decreases as they get older and more experienced.^{16,17} This can be explained by the traditional aspect of health literacy. Experienced women may tend to believe that stereotypical expressions in media may be misleading.²⁵ However, media can be useful not only for creating awareness about health problems in society but also for addressing social and cultural issues. This critical role of media may help overcome barriers to access to health care including contraceptive services.²⁶

The most known contraceptive method in the study group was oral contraceptives (17.1%) and the least known one was vasectomy (4.5%). 38 women (3.7%) stated that they did not know any contraceptive method. Based on the 2018 data from the Turkey Demographic and Health Survey (TDHS), all women as well as almost all married women know at least one birth control method. 97% of all women and 99% of all married women stated that they knew any modern family planning method. Based on TDHS data, the most known method among married women is oral contraceptives (97%). Similarly, vasectomy is among the least known methods (36%).⁴

237 women (23.1%) in the study group stated that they do not use any contraceptive method. The most used contraceptive method was a condom (50.8%) and the least used one was the calendar method (0.4%). Based on 2018 TDHS data, while the most common method used by married women is withdrawal (58%) followed by male condoms (49%), the least commonly used one is the calendar method (1%).⁴ In a study conducted in China, it was reported that the most commonly used contraceptive methods were condoms (61.4%) and withdrawal (25.4%).²⁷ It shows that the data obtained in our study is consistent with TDHS data.

339 women (33.1%) stated that they have not been informed about the contraceptive method they use. Of the women who have been informed about the contraceptive method they use, 57.8% reported healthcare professionals as their source of information. The systematic review of Gavas and Inal (2019) showed that the top source of information used by the participating married women and their spouses was healthcare professionals.²¹

The number of women who do not know which method they will use if they need to use a contraceptive method again was 153 (15.0%). 21.7% of the women stated that they would use an IUD and 21.7% stated that they would use tubal ligation if they needed to use a contraceptive method again. Similarly, based on 2018 TDHS data, IUD (28%) is the first method to be preferred by a landslide if a contraceptive method is needed again. 8% of the women stated that they would prefer the tubal ligation method.⁴

Health literacy of the women who stated that they would prefer a modern contraceptive method if needed again was higher than those who do not know what to use. A study showed that women would prefer more effective family planning methods in the future compared to previous use.²⁰

In our study, no difference was found between health literacy and the use of a contraceptive method. Studies showed that the use of contraceptives increases with higher health literacy.^{14,22,28} A different research study suggested that university students with low health literacy levels were more inclined to engage in inappropriate behaviors related to the inadequate prevention of unintended pregnancies.⁹

Limitations of the study

The limitations of this study may include the fact that it is a cross-sectional study, and that multiple linear regression analysis was inappropriate.

Conclusion

It can be suggested that the women in this study have moderate health literacy based on their scores obtained from the European Health Literacy Survey Questionnaire. Health literacy was found to be lower in those aged 35 years and above, those who graduated from primary school, those who have been married for 20 years and above, those who have given birth 3 times or more, those with 2 and more living children and those with a history of stillbirth. Health literacy of the women who stated that they would prefer a modern contraceptive method if needed again was higher than those who do not know what to use. Informative activities to improve the health literacy of women will encourage the preference for modern contraceptive methods.

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Conflicts of Interest

The authors declare that they have no competing interests.

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