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The relationship between health literacy and family planning attitude in women in Kırşehir province, Turkey

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Abstract

To develop positive attitudes towards family planning, health literacy is important. This study aimed to investigate a relationship between health literacy and family planning attitudes among married women. 657 married women volunteered to participate in this cross-sectional, correlational and descriptive study. The Türkiye Health Literacy - 32 scale and the Family Planning Attitude Scale were used in the study. According to the results, the women's general health literacy score was 34.5±8.7 out of 50 points, which was adequate, and the family planning attitude score was 128.9±17.7 out of 170 points, which was above the average. İt is found a weak positive relationship between health literacy and family planning attitudes. Educational status, occupation and income level affect health literacy and family planning attitude. It is noteworthy that 84.4% of women with inadequate health literacy were using modern family planning methods, while this rate was 77.1% among women with adequate health literacy. To improve women's attitudes towards family planning, it is recommended that health literacy is improved, effective media content is developed and women are encouraged to use primary health care services. *(Afr J Reprod Health 2024; 28 [6]: 95-102)*

Keywords: Health literacy, family planning attitude, woman, reproductive health, contraception

Résumé

Pour développer des attitudes positives à l'égard de la planification familiale, il est important d'avoir des connaissances en matière de santé. Cette étude visait à examiner la relation entre les connaissances en matière de santé et les attitudes à l'égard de la planification familiale chez les femmes mariées. 657 femmes mariées se sont portées volontaires pour participer à cette étude transversale, corrélationnelle et descriptive. L'échelle Türkiye Health Literacy - 32 et l'échelle Family Planning Attitude Scale ont été utilisées dans l'étude. Selon les résultats, le score général des femmes en matière de santé était de 34,5±8,7 sur 50 points, ce qui est adéquat, et le score de l'attitude de planification familiale était de 128,9±17,7 sur 170 points, ce qui est supérieur à la moyenne. Il existe une faible relation positive entre les connaissances en matière de santé et les attitudes à l'égard de la planification familiale. Le niveau d'éducation, la profession et le niveau de revenu influencent les connaissances en matière de santé et l'attitude à l'égard de la planification familiale. Il convient de noter que 84,4 % des femmes dont les connaissances en matière de santé sont insuffisantes utilisent des méthodes modernes de planification familiale, alors que ce taux est de 77,1 % chez les femmes dont les connaissances en matière de santé sont suffisantes. Pour améliorer l'attitude des femmes à l'égard de la planification familiale, il est recommandé d'améliorer les connaissances en matière de santé, de développer un contenu médiatique efficace et d'encourager les femmes à utiliser les services de soins de santé primaires. *(Afr J Reprod Health 2024; 28 [6]: 95-102).*

Mots-clés: Connaissances en matière de santé, attitude à l'égard de la planification familiale, femme, santé génésique, contraception

Introduction

Health literacy, which is one of the social determinants of health, has become a topic that has attracted attention in recent years. Health literacy is the degree to which people have the basic health knowledge, skills, and abilities to access, understand, and use health services that they need to make appropriate decisions about their health[1]. Inadequate or low health literacy leads to increased hospitalisations, emergency department visits and substance use, as well as reduced use of preventive health services, adverse health outcomes and increased healthcare costs[2-3].

Health literacy is an issue that covers the whole society. However, women have a special position both because of the risks and diseases they may encounter during motherhood and because they take an active role in the protection of family health[4,5]. Health literate women can identify health

issues sooner, seek health services in a timely manner, seek recommended care, and monitor their own health[4]. Women should be able to protect themselves from sexually transmitted diseases, have planned
pregnancies, healthy pregnancies and access to postnatal care to protect both their health and their productive lives[6]. It is important for individuals to have knowledge about safe sex so that they can understand and evaluate the risks related to sexual health more deeply[7]. In this direction, high health literacy level is an important mediating factor[6]. Unplanned pregnancies can adversely affect the health of the mother and the baby in particular and the health of the family and society in general[8]. For this reason, it is appropriate for women to plan a pregnancy when they feel mentally and physically ready, and to use effective family planning methods until that time.

Attitude is a process that develops over a long period of time in human life[8]. It is observed that individuals with a sufficient level of health literacy have positive family planning attitudes[6]. Negative family planning in women There are many factors that negatively affect women's use of effective family planning methods. Some of these factors; low level of education, low perceived income level, women's religious beliefs, use of unproven family planning methods, limited access to reliable family planning information sources, women taking on household responsibilities alone, lack of support from their husbands in using family planning methods, and negative attitudes towards family planning. is their attitude[7].

A review of the literature shows that health literacy and family planning attitudes, which are important determinants of women's health, have been studied extensively under separate headings, but the number of studies that examine the effect of health literacy levels on family planning attitudes is quite limited. In this direction, our study aims to examine the relationship between health literacy and women's family planning attitudes.

Methods

Population and sample

Kırşehir has 158,954 inhabitants. Approximately 24% of the total population is composed of women aged 18-49. The population of married women between the ages of 18-49 years living in the centre of Kırşehir is 27,000. The rate of unwanted births in the study area is 26%[10]. Using a tolerance level of 0.02, a confidence level of 95%, two design effects and a non-response rate of 10%, the sample size was calculated to be 648.88. A total of 657 data were included in the study. 30 Cluster sampling was used for sample selection[110].The women to be sampled were selected in 2 stages.

1st Step: There are 47 Family Physicians in Kırşehir city centre. According to the characteristics of the settlement unit, the units served by Family Physicians were grouped according to low, medium and high socioeconomic level and weighted according to population density and 30 clusters were formed by simple random method.

2st Step: After forming 30 clusters, the cumulative totals of the family physician populations were taken and the street to be selected for the sample was chosen by simple random sampling. The women in each cluster were numbered and 22 of them were randomly selected and the sample was selected from the clusters. In total, 660 data points were collected. However, 657 questionnaires were included in the analysis after three questionnaires were excluded from the study due to missing information.

Residing in Kırşehir province, being a woman between the ages of 18-49, being married and being registered to a family health center at the time the study was conducted were determined as inclusion criteria for the study.

Not being a Turkish citizen, having a psychological disorder that prevents from answering the survey and failure to complete the survey completely were determined as exclusion criteria.

A survey form prepared by the researchers because of the literature review was used to collect data for the study[12-18]. The questionnaire form consisted of a total of 41 questions and two scales. The Türkiye Health Literacy Scale-32 (THLS-32) and the Family Planning Attitude Scale (FPAS) were the two scales used in the questionnaire.

Scales

Türkiye health literacy scale-32 (THLS-32)

The scale assesses the health literacy of people over the age of 15[19]. The scale consists of two dimensions

related to health-related decisions and practices (treatment and care, disease prevention and health promotion) and four dimensions related to the process of obtaining information (access, understanding, evaluation and use/application). The Cronbach's alpha value is 0.93 for the scale as a whole. The Cronbach's alpha reliability coefficient of the scale was 0.95 in our study.

When calculating the scale; each item has 4 levels as "1.very easy, 2.easy, 3.difficult, 4.very difficult". In the calculation of the score, the codes should be recoded as 1-4, 4-1. The total score has been standardised using the formula for ease of calculation; "Index = (arithmetic mean-1) x [50/3]" for a value between 0-50.

On the scale, a score of 0 indicates the lowest level of health literacy and a score of 50 indicates the highest level of health literacy. The level of health literacy can also be assessed categorically. This is shown below.
Inadequate health literacy: (0-25 points)
Problematic- limited health literacy (>25-33 points)
Adequate health literacy (>33-42 points)
Excellent health literacy (>42-50 points)

Family planning attitude scale (FPAS)

Orsal and Kubilay developed FPAS[20]. The scale is Likert-type and consists of 34 items. Each statement in the scale has a point value from 1 to 5. The scale can be scored from a minimum of 34 to a maximum of 170 points. As the scores on the scale increase, the attitude towards family planning becomes more positive.

The scale has 3 sub-dimensions as "Society's Attitude towards Family Planning (15 items)", "Attitude towards Family Planning Methods (11 items)" and "Attitude towards Childbirth (8 items)". The coefficients of internal consistency and homogeneity, as determined by the alpha correlations, were found to be 0.90 for the entire FPAS. In our study, the scale's Cronbach's alpha reliability coefficient was 0.93.

Data collection

The survey questionnaire was collected by making home visits to the households determined as a result of 30 cluster sampling between 10:00 and 16:00 on weekdays.

Analysing data

The data was analysed using IBM SPSS version 20.0 (IBM Corp. Released in 2011. IBM SPSS Statistics for Windows, version 20.0. Armonk, NY: IBM Corp.). In the analysis, the data were presented as absolute frequency (n) and relative frequency (%). The Kolmogorov-Smirnov test and histogram were used to test for normality. Means and standard deviations are presented for continuous, normally distributed variables. T-test was used for analysis of two independent sample means, and one-way ANOVA test was used for comparison of more than two sample group means. LCD was used for Post Hoc testing. Chi-square test was used for data comparisons. The relationship between the variables was determined by Pearson correlation test. P values ≤ 0.05 were considered statistically significant.

Ethical committee approval

This study was approved by the Ethics Committee on 05 January 2022 with approval number 2022/34. The women were explicitly told that their participation in the study was completely voluntary. They were also assured of confidentiality. Written consent was obtained from participating women using the Informed Voluntary Consent Form, and the study adhered to the tenets of the Declaration of Helsinki.
This article is derived from the doctoral thesis titled "Relationships of fatalism and health literacy with family separation relationships among married people aged 18-49".

Results

Participants were on average 36.6 ± 7.9 years old. Of the women, 35.2% were graduates of higher education, 89.2% had a nuclear family type, 60.6% were employed in an income-generating job and 9.9% were health workers. 62.4% of the women stated their income level as medium.

The overall mean THLS-32 score of the women who took part in the study was 34.5 ± 8.7 above 50.0. In the treatment and care dimension, evaluation of health-related information has the lowest score, whereas use/application of health-related information has the highest score. Women scored lowest in evaluating health-related

Table 1: Mean scores of women in THLS-32 Scale and FPAS

	x̄±SD
Total THLS-32 mean score. (n=657)	**34,5±8,7**
Treatment and Service	**35,9±8,3**
Access to health-related information	37,0±9,6
Understanding health-related information	36,6±8,9
Evaluating health-related information	32,0±11,2
Using/applying health-related information	38,3±8,5
Disease Prevention / Health Promotion	**33,2±10,1**
Access to health-related information	34,2±11,6
Understanding health-related information	36,0±10,6
Evaluating health-related information	30,8±12,6
Using/applying health-related information	32,0±11,2
General Family Planning Attitude Scale Score	**128,9±17,7**
Attitude of the society towards FP	**60,3±8,7**
Attitude towards FP methods	**41,5±7,9**
Attitude towards birth	**30,9±5,1**

Table 2: Scores on the FPAS according to women's level of health literacy

Health Literacy Level[a]	N	%	Family Planning Attitude Scale Score X̄±SD
Insufficient HL[1]	79	12,0	124,91±17,039
Problematic-Limited HL[2]	226	34,4	123,95±14,875
Adequate HL[3]	202	30,7	129,37±18,270
Excellent HL[4]	150	22,8	137,71±17,710
Total	**657**	**100,0**	**F=21,604, p=0,000** [4-1,2,3]

F= One Way ANOVA, a= LCD was used as post hoc test

information and highest in understanding health-related information in the prevention/health promotion sub-dimension. The mean total score of the women on the FPAS was 128.9 ± 17.7 out of a possible 170.0. (Table 1)

Among women in the study, 12% had insufficient, 34.4% had problematic-limited, 30.7% had adequate and 22.8% had excellent HL. When adequate and excellent HL levels are combined, it is seen that more than half of the women (53.5%) have adequate HL. Attitudes towards family planning were found to be significantly higher in women with excellent HL ($p<0.05$) (Table 2).

Among women in the study, the level of HL was found to be significantly higher in those who were between the ages of 18-24, who were graduates of higher education, who were health workers, and who expressed their income level as good. Attitudes towards family planning were found to be significantly higher ($p<0.05$) among those who had completed higher education, had a nuclear family type, were employed in any job, were health workers and had a good income level (Table 3).

The rate of women with inadequate health literacy level who stated that they decided on the FP method they used on their own was significantly higher ($p<0.05$). The rate of those who think that using FP methods is a sin, those who do not want to receive FP counselling from male personnel, and those who think that curettage is a sin are higher in women with insufficient health literacy level ($p<0.05$). Although the inadequate general HL score of those who had voluntary abortion, those who used modern methods, those who had 4 or more living children, those who had 2 or less years between the last two pregnancies, and those who did not find FP modern methods safe was higher, it was not significant ($p>0.05$) (Table 4).

THL- 32 total score and FPAS total score were compared by correlation analysis. As a result of the analysis, it was seen that as women's health literacy level increased, their attitude towards family planning increased ($r= 0.293$; $p= 0.000$). (Table 5).

Discussion

Education level is one of the demographic factors that influence the development and use of women's health literacy skills[3,13]. Studies have shown that the appropriate HL levels of university graduates are higher than those of non-university graduates[3,21,22]. Our study found that those with higher education had significantly higher adequate HL than those with other levels of education ($p<0.05$) (Table 3).

Working status and perceived economic status is a mediating factor in accessing health services[21]. In the literature, there are studies that found that those who work and have a good income level have an adequate level of health literacy[21]. However, in one study, no relationship was found

Table 3: "Comparison of the mean scores of the TSOY-32 scale and FPAS with various variables of the women participating in the study"

Variables	n	THL-32 Scale		FPAS	
		X̄±SD	**Test significance**	**X̄±SD**	**Test signifcance**
Age[a]					
18-24[1]	44	36,3±8,3		129,0±17,6	
25-34[2]	226	35,7±8,8	F=2,932	130,0±18,3	F=1,203
35-44[3]	258	33,8±8,7	**p=0,033 ***	128,9±16,6	p=0,308
45-49[4]	129	33,5±8,5		126,5±18,6	
Last graduated school[a]					
At least primary school graduate[1]	126	31,3±8,1		121,5±15,6	
Secondary education graduate[2]	92	34,2±8,9	F=9,765 **p=0,000 ****	124,2±15,5	F=22,170 **p=0,000 *****
High school graduate[3]	208	34,8±8,5		128,1±17,1	
High school graduate[4]	231	36,2±8,5		135,5±17,8	
Family type					
Extended family	71	33,2±8,4	t=1,317	124,1±19,2	t=2,420
Nuclear family	586	34,7±8,7	p=0,188	129,5±17,4	**p=0,016**
Working					
Yes	259	35,2±8,9	t=1,562	131,7±17,9	t=3,369
No	398	34,1±8,6	p=0,119	127,0±17,3	**p=0,001**
Whether she is a health worker					
Health worker	65	37,5±8,3	t=2,930	137,0±19,4	t=3,942
Not a health worker	592	34,2±8,7	**p=0,004**	128,0±17,3	**p=0,000**
Self-reported income level[a]	23	33,2±9,2	F=4,564	122,8±19,5	F=3,315
Good[1]	410	33,8±8,6	**p=0,011 ********	128,1±17,6	**p=0,037 *********
Middle[2]	224	35, 9±8,7		131,0±17,5	
Bad [3]					

F= One Way ANOVA, t= independent sample test, a= LCD was used as post hoc test
**1-3,4; 1-3,4*
***2-1; 3-1; 4-1*
****2-4; 3-4; 4-1,2,3*
*****2-3*
******2-3; 3-1,2*

between employment and income levels and health literacy[3]. In our study, there was no significant association between working status and health literacy (p>0.05), although those who described their income level as good had high health literacy (p<0.05) (Table 3).

Women with adequate health literacy level are in an advantageous position in the process of accessing information about family planning, accessing, using and evaluating the product[6]. In one study, it was found that women with adequate level of HL use modern family planning methods to a significant rate[13]. However, there are studies in the literature that have not found a significant association of modern family planning method use with health literacy levels[3]. Our study did not find a significant gap between adequate and inadequate health literacy regarding the use of modern practices (p > 0.05) (Table 4).

The use of modern family planning methods should be increased to reduce the number of unplanned pregnancies. For this purpose, it is important for women to choose the method they want to use by themselves after obtaining information from accurate and reliable sources for effective and long-term use of that method[23]. In a study, it was found that women who applied to a health institution for family planning request used

Table 4: Comparison of family planning attitudes and behaviours of women with adequate and inadequate health literacy

Variables	Health literacy level					
	Inadequate (n=305)		**Adequate (n=352)**			
	n (%)	**%**	**n (%)**	**%**		
Voluntary miscarriage	15	4,9	14	4,0	0,343	0,558
Those who use any FP method	264	86,6	301	85,5	0,148	0,700
Those who use modern methods (n=565)	215	81,4	232	77,1	1,620	0,203
Those with 4 or more living children	26	8,5	26	7,4	0,290	0,590
The interval between the last two pregnancies is less than 2 years (n=502)	66	27,0	68	26,4	0,031	0,861
FP trainees among health professionals (n=565)	196	74,2	212	70,4	1,018	0,313
Those who do not consider modern family planning methods safe (n=92)	24	58,5	21	41,2	2,741	0,098
Self-deciding on the FP method used (n=565)	125	47,3	179	59,5	***8,312***	***0,004***
Those who say "Couples should decide on the FP method together"	296	97,0	335	95,2	1,523	0,467
Those who say "Using the FP method is the responsibility of both couples."	282	92,5	336	95,5	4,416	0,110
Those who say "I think using AP methods is a sin"	25	8,2	13	3,7	***11,311***	***0,003***
Those who say "I do not want to receive AP consultancy from male personnel"	138	45,2	104	29,5	***24,222***	***0,000***
Those who say "I think abortion is a sin"	19	63,0	194	55,1	***15,818***	***0,000***

Table 5: The relationship between FPAS and THLS-32

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
(1) Türkiye Health Literacy-32 Scale						
r	**-**					
p	**-**					
(2) Treatment and Service						
r	0,925**					
p	**0,000**					
(3) Disease Prevention/Health Promotion						
r	0,950**	0,760**				
p	**0,000**	**0,000**				
(4) Family planning attitude scale						
r	0,293**	0,301**	0,255			
p	**0,000**	**0,000**	**0,000**			
(5) Societie's attitude toward FP						
r	0,293**	0,306**	0,250**	0,884**		
p	**0,000**	**0,000**	**0,000**	**0,000**		
(6) Attitude toward FP methdos						
r	0,244**	0,241**	0,219**	0,830**	0,559**	
p	**0,000**	**0,000**	**0,000**	**0,000**	**0,000**	
(7) Attitude toward birth						
r	0,170**	0,175**	0,147**	0,770**	0,551**	0,508**
p	**0,000**	**0,000**	**0,000**	**0,000**	**0,000**	**0,000**

modern methods 2.39 times more than those who did not apply[14]. In our study, 59.5% of women with adequate health literacy chose the method they used, compared to 47.3% of women with inadequate health literacy. The difference was significant ($p<0.05$) (Table 4).

Women with higher levels of education find it easier to access family planning services and

develop positive attitudes[24]. As women's education increases, their attitudes towards family planning improve[24-27]. In one study, it was found that women with secondary education used family planning methods 3 times more than women without any formal education[14]. In other studies, it was observed that the family planning attitude of women with university level education was significantly higher[24,28]. In our study, in line with the literature, family planning attitudes were higher among women with higher education ($p<0.05$) (Table 3).

The fact that women have a profession and an income-generating job and perceived good economic status is a driving force in the use of modern family planning methods[6]. In one study, household economic status of women of childbearing age was found to affect the use of family planning[6]. In our study, we found that attitudes towards family planning were high ($p<0.05$) among women who were employed, who rated their income level as good, and whose occupation was health worker (Table 3). The reason for this may be that working women give importance to the use of the method with the thought that a new pregnancy would cause interruption in their work life. In addition, positive family planning attitudes may have developed due to the higher level of education in the working group.

The family type in which couples live is shaped according to the culture. Individuals can develop positive or negative attitudes on any subject due to the influence of culture and the dominant role of family elders in extended families[24]. When the literature was examined, it was found that the family planning attitude of individuals with extended family characteristics was lower[29]. As a result, our study found that family planning attitudes were significantly lower in extended families, consistent with literature ($p<0.05$) (Table 3).

Health literacy is important for family planning knowledge, attitudes and behaviour[6,30]. Lowtake-up of family planning services among women of reproductive age in most countries south of the Sahara, including Tanzania, is linked to poor health literacy[6]. One study found that people with low health literacy had less knowledge about the importance of hormonal contraceptives and how they work[31]. Our study found that as women's health literacy increased, their attitudes towards family planning increased ($p<0.05$) (Table 5).

Conclusion

In our study, it was found that there was a weak positive relationship between women's health literacy and family planning attitudes, and family planning attitudes increased as health literacy increased. Since there are few studies in the literature examining the relationship between the health literacy level of the society and family planning attitudes, it is recommended to conduct studies in different regions.

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Authors' contributions

How to design FC-SA, methodology FC-SA, initial draft writing FC-SA, data gathering SA, and write a report FC-SA and editing FC-SA.

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