BMC Women's Health

RESEARCH

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Determinants of the desire to avoid pregnancy after the disaster of the century in Türkiye

Zeliha Özşahin[1*]

Abstract

Background After natural disasters, the occurrence of mental health problems and adverse effects on reproductive health in women of reproductive age can be attributed to a multitude of factors, including the deterioration of health facilities, a shortage of qualified health professionals, a lack of socio-economic stability, and a paucity of familial and community support.

Methods The descriptive correlational study was conducted through social networks with 405 women who had experienced the disaster of the century 8 months after (between November and December 2023) the earthquake. The snowball sampling method was used to obtain the research data. The questionnaire form, developed for the purpose of data collection, was disseminated to women who consented to participate in the study through social networks. The data were evaluated using a variety of statistical techniques, including number, percentage, mean, standard deviation, independent sample t-test, one-way analysis of variance, and structural equation modeling.

Results According to the results of linear regression analysis, these were found to be predictors of the desire to avoid pregnancy: having housing problems (β-coefficient 0.173; $p = .008$), having a damaged home (β-coefficient. 276; $p = .009$), sleep patterns (β-coefficient 0.433; $p = .022$), eating habits (β-coefficients 0.248, 0.044), use of psychiatric medication (β-coefficient 0.436, $p = .003$), and problems related to the food and water supply (β-coefficient 0.127, $p = .003$). In addition, a structural equation model (SEM) was established to examine the relationship between these variables and mental well-being and pregnancy avoidance. Only the model constructed with mental well-being demonstrated significance in the SEM analysis.

Conclusions This study shows that women's mental health is negatively affected in unpredictable emergencies such as earthquakes and that poor mental health negatively affects pregnancy planning. The findings of the study may help to guide health professionals working in the field of women's health to protect women's mental health in emergency situations, to provide counseling about pregnancy planning, and to provide social and psychological support programs.

Keywords Earthquake disaster, Woman's health, Mental well-being, Desire to avoid pregnancy

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Background

Earthquakes are a common and destructive phenomenon across the globe. They are among the most frequent natural disasters with the potential to cause significant destruction [1]. The earthquakes that occurred in Pazarcık and Elbistan, districts of Kahramanmaraş province in Turkey, on February 6, 2023, had a magnitude of 7.8 Mw and 7.5 Mw, respectively, and occurred within an interval of 9 h. These earthquakes were recorded as the most massive earthquake of Turkey with the highest intensity level, XII (cataclysmic), according to the Mercalli scale [2]. The two major earthquakes that struck Turkey on February 6, 2023, had a significant impact on several provinces, with Kahramanmaraş, Adıyaman, Hatay, and Malatya being among the most severely affected regions. Given the extensive geographical scope of the earthquake-affected region, there were inevitable delays in the provision of essential services, with some locations only accessible after a few days [3]. Additionally, a considerable number of women were compelled to reside outside of their homes, separated from their spouses and families. Many of these women lost their loved ones or were forced to endure extended periods of uncertainty, awaiting the rescue of their relatives who were trapped beneath the rubble of the earthquake for days on end [4, 5]. The region was subjected to considerable damage to its infrastructure. As indicated in the official data, the premises of a total of 42 hospitals affiliated with the Ministry of Health of Turkey (comprising 27 public hospitals, 6 university hospitals, and 9 private hospitals) were severely or moderately damaged by earthquakes. Conversely, 35 field hospitals were established across the region [6].

The occurrence of natural disasters gives rise to a number of short-term and long-term health issues, with a range of effects on human health. Furthermore, these disasters present a significant threat to public health [7, 8]. The World Health Organization (WHO) has indicated that natural disasters, such as earthquakes, have the potential to precipitate mental health issues, with the risk of exacerbation in the future. According to the WHO, one in five individuals who do not receive assistance in the aftermath of such disasters may develop mental health concerns within a decade [8]. The WHO further notes that poor mental health can give rise to a range of adverse outcomes, including fear, stress, post-traumatic stress disorder (PTSD), and depression [9].

The hypothesis that preexisting gender and socioeconomic inequalities were deepened even further along with disasters has been put forth by several researchers [9]. There is a substantial body of evidence indicating that women are affected by natural disasters to a greater extent than men. This evidence suggests that women are more vulnerable to the effects of natural disasters than men [10–13]. For example, women are more vulnerable than men in the context of disasters, with increased exposure to violence, sexual harassment, disease, and psychological trauma [14]. The average lifespan of women is shortened by natural disasters to a greater extent than that of men. Furthermore, the low socioeconomic status of women exacerbates the lethal impact of disasters on women [15]. It is evident that reproductive-related hormonal developments are adversely impacted during traumatic periods, such as disasters, which can precipitate or exacerbate mental health issues and anxiety disorders [16]. Some researchers posit that greater attention should be devoted to addressing the reproductive needs of women in the aftermath of natural disasters [17–19]. The occurrence of disasters can serve to enhance the susceptibility of individuals to unfavorable outcomes with respect to reproductive health. This is due to the fact that such events often result in a reduction of access to reproductive health services, which can be attributed to the damage sustained by health facilities and the subsequent scarcity of available health professionals [20]. A study conducted in the aftermath of the 2018 Indonesian earthquake revealed that women's desire for pregnancy was influenced by several factors, including age, the number of previous pregnancies, and the contraceptive method employed [20]. In the aftermath of the global spread of the COVID-19, the desire of women to avoid pregnancy increased [21]. The evidence indicates that alterations in brain function resulting from disasters are among the causes of physiological and psychological stress [22]. Mental health and reproductive health are significant factors that contribute positively to the general well-being of women [23]. Mental health issues have been linked to a reduction in contraceptive use and an increase in unplanned pregnancies [18, 24, 25]. It has been posited that poor mental health is both a cause and consequence of unwanted pregnancies. It has been asserted that women with poor mental health have been unable to select the appropriate contraceptive method and engage in sound pregnancy planning, resulting in a greater number of unwanted pregnancies [26, 27]. To the best of our knowledge, this is the first study to examine women's desire to avoid pregnancy after the earthquake together with their mental health and the negative conditions caused by the earthquake. Therefore, it is thought that the results of the study will make important contributions to the field.

The objective of this study was to identify the factors that influence the desire for pregnancy among women of reproductive age in Türkiye in the aftermath of the disaster of the century that occurred in the country.

Research questions

Do earthquake-induced adverse events affect the desire to avoid pregnancy?

Does post-earthquake mental well-being affect the desire to avoid pregnancy?

Methods

Research design and sample

This correlational survey study was conducted between November and December 2023. The study included women who experienced the Kahramanmaraş earthquakes in Turkey. In the study, the correlational survey model was utilized to analyze the interactions between two or more variable sets in a multifaceted manner including direct and indirect effects [28]. The study population consisted of women of reproductive age residing in the four provinces most severely impacted by the Kahramanmaraş earthquake, namely Kahramanmaraş, Hatay, Adıyaman, and Malatya. The minimum sample size for the research was calculated with G*Power 3.1.9.2, with the mean Desire to Avoid Pregnancy Scale score in the study by Güney and Okyay serving as the reference point [29]. In this regard, the minimum sample size was calculated as 358 women in the power analysis with an effect size of 0.26, a margin of error of 5%, a confidence interval of 95%, and a power of 80% to represent the population. In light of the potential for data loss during the research process, the study was conducted with a total of 405 women who consented to participate. Since the study data were collected from the four provinces most severely affected by the earthquake, the data were collected via an online form.

In order to obtain the requisite research data, the snowball sampling method was employed. This method is utilized in instances where it is challenging to gain access to the individuals who constitute the research population, or when data such as the population size are unavailable [30, 31]. The advantages of this sampling method include an increase in the amount of data collected and a focus on critical cases [32]. Upon responding to the research questions, the women who had consented to participate in the study were requested to disseminate the survey link to other women whom they were aware would meet the inclusion criteria for the study. The researcher employed an online survey form created using her personal Google account for the purpose of data collection. The survey link was disseminated to women who had consented to share the survey form with other women through social networks (WhatsApp, Facebook, X, and Instagram). In the initial phase of the study, the researcher sent the survey link to the women she was acquainted with directly or indirectly in the four provinces through the aforementioned social networks. The women who were reached in this manner were then asked to disseminate the survey link to their acquaintances. The women were required to meet several criteria in order to be included in the research. These criteria included being aged 18 years or above, residing in one of the four Turkish provinces that had been most affected by the Kahramanmaraş earthquakes, being sexually active, not pregnant, using a smartphone, having an internet connection, and voluntarily agreeing to participate in the study. In contrast, the research excluded women who were pregnant or sexually inactive.

Data collection tools

The Personal Information Form, the Warwick-Edinburgh Mental Well-Being Scale, and the Desire to Avoid Pregnancy Scale were utilized to collect research data.

Personal information form In the aftermath of a seismic event, women are confronted with a multitude of challenges, including economic deprivation, difficulties in accessing health facilities, shelter, and hygiene problems, in addition to reproductive health concerns [23, 33, 34]. These issues have the potential to give rise to mental health concerns among women [23]. In view of this information, the personal data form was developed to include 23 questions based on an analysis of the relevant literature.

Warwick-Edinburgh mental well-being scale [WEMWBS The WEMWBS comprises 14 items and assesses an individual's positive mental health by examining psychological and subjective well-being. It is a five-point Likert-type scale [1: strongly disagree – 5: strongly agree], and the scare range of the scale is 14–70 points. In this study, a minimum score of 14 and a maximum score of 70 were obtained. The WEMWBS does not include any inverse items. Gökay Keldal conducted a validity and reliability study to create its Turkish form in 2015 [35]. In this research, the Cronbach's alpha coefficient was employed as a measure of internal consistency, with a value of 0.945 obtained for the WEMWBS.

Desire to avoid pregnancy [DAP] scale Rocca et al. [2019] developed the DAP Scale. Subsequently, Okyay et al. conducted a validity and reliability study to create its Turkish form. It was developed with the objective of prospectively measuring the range of a sexually active woman's preferences for a likely pregnancy in the future, as well as identifying the woman's desire to avoid pregnancy. The DAP Scale, comprising 14 items, included five items pertaining to the woman's feelings and thoughts about conceiving a baby in the next three months and nine items concerning her feelings and thoughts about having a baby in the next year. The minimum score on the scale is 0 and the maximum score is 4. In this study, the minimum score

was 0 and the maximum score was 4. A high DAP Scale score indicates that the respondent has a strong desire to avoid pregnancy. The Cronbach's alpha coefficient, which is a measure of internal consistency, was reported as 0.94 for the Turkish form of the scale [36]. In this study, the Cronbach's alpha coefficient was found to be 0.92 for the DAP Scale.

Data collection

The data were gathered via online sources by the researcher between November and December of 2023.

Data evaluation

The research data were analyzed by using the Statistical Package for Social Science (SPSS) 25.0. The Kolmogorov-Smirnov test was utilized to find whether the research data exhibited a normal distribution [37]. Prior to conducting the multivariate analysis, it was first necessary to ascertain whether the multiple variables in question were normally distributed. The calculated skewness value for the model was 7.124, which was below 8. Consequently, multiple variables were deemed to be normally distributed [38].

To establish a basis for comparison, a cut-off point of 0.05 was set for statistical significance ($p<.05$). As the variables were normally distributed ($p>.05$), the subsequent analyses were conducted using parametric tests. Descriptive statistics for variables were expressed as numbers, percentages, means, and standard deviations. To ascertain whether there were differences between the groups, an independent samples t-test and one-way analysis of variance were employed. To determine the relationship between mental well-being and the desire to avoid pregnancy, structural equation modeling was utilized. Cronbach's alpha coefficient was utilized to test the reliability of the scales used in the study. The t-test and one-way analysis of variance (ANOVA) were used as comparative tests. A simple linear regression analysis was used to ascertain whether the variables could predict DAP. Subsequently, a Structural Equation Model (SEM) analysis was performed was conducted using AMOS 24.0.

Ethical considerations

Prior to the commencement of the study, approval for the research project was granted by the Scientific Research and Publications Ethics Committee of Inonu University of Türkiye. Prior to the collection of research data, prospective participants were informed about the study, and subsequently, expressed their informed consent in an online format (Google Forms) to participate in the study. The research was conducted in accordance with the tenets set forth in the Helsinki Declaration.

Results

The mean age of the female participants was determined to be 31.47±7.74 years. Additionally, 61.7% of the female participants had obtained a university degree, while 54.6% were not currently employed. The majority of participants (70.6%) reported a medium-level income, with the majority (71.6%) residing in the provincial center. The majority of participants (74.1%) had at least one child, with 20% having a child below the age of two. It was determined that 51.9% of the subjects exhibited alterations in their menstrual cycles, 53.3% demonstrated prolonged menstrual cycles, 59.3% exhibited an increase in the number of days during which they had menstrual bleeding, 34.6% exhibited intermenstrual bleeding, and 45.2% encountered difficulties in accessing hygienic pads (Table 1).

Furthermore, it was determined that 49.4% of individuals residing in the Malatya province of Turkey had experienced earthquakes. As a result of these seismic events, 65.4% of the population had sustained damage to their residences, 35.3% had been compelled to relocate to alternative accommodations, 52.4% encountered challenges related to their housing, and 29.2% were residing in temporary shelters, such as tents or container houses. A total of 5% of the respondents reported difficulties in accessing food and beverages, while 92.3% experienced changes in their sleep patterns. Additionally, 78.8% of the respondents indicated alterations in their dietary habits, 62.5% reported changes in their physical activity levels, and 38.3% lost a relative or relatives. Furthermore, 14.1% of the respondents started using psychiatric medications during the post-earthquake period. The mean DAP Scale scores for women who experienced accommodation problems, women whose houses were damaged by earthquakes, women who experienced changes in sleep patterns, women who experienced changes in dietary habits, women who used psychiatric medications, and women who experienced problems finding food and beverages were all lower than the respective mean scores for other groups of women who did not experience such problems (Table 2).

As indicated in Table 3, there was no correlation between the desire to avoid pregnancy and the province where earthquakes were experienced, the place of residence, the status of experiencing changes in the physical activity level, and the status of experiencing changes in the menstrual cycle. On the other hand, there were correlations between the desire to avoid pregnancy and other variables. Consequently, a linear regression analysis was conducted, based on these correlations, to ascertain the model. Findings demonstrate that, in the post-earthquake period, women who experienced accommodation problems, women whose houses were damaged by earthquakes, women whose sleeping patterns changed, women

Table 1 Socio-demographic characteristics and menstrual cycles experienced by the participants after the earthquake

Variable *n*	*n*	%
Age		
< 35	289	71.4
≤ 35	116	28.6
mean ± sd	31.47 ± 7.74	
Education level		
Primary education	66	16.3
High School	89	22.00
University and above	250	61.7
Employment status		
Working	184	45.4
Not working	221	54.6
Perceived income status		
High	83	20.5
Middle	256	70.6
Low	36	8.9
Place of Residence		
Province	290	71.6
District	87	21.5
Village-Town	28	6.9
Do you have children		
Yes	300	74.1
No	105	25.9
Do you have children under 2 years old?		
Yes	81	20
No	324	80
Has your menstrual cycle changed?		
Yes	210	51.9
No	195	48.1
Did your cycle duration change?		
No, there was no change.	77	19
Yes it decreased	112	27.7
Yes increased	216	53.3
Has your number of bleeding days changed?		
No, there was not	77	19
Yes it decreased	88	21.7
Yes increased	240	59.3
Have you had spotting in between?		
Yes	140	34.6
No	265	65.4
Have you had problems accessing sanitary pads?		
Yes	183	45.2
No	222	54.8
Total	405	100

whose dietary habits changed, women who were using psychiatric medications, and women who experienced problems accessing food and beverages had a lower desire to avoid pregnancy.

Results of the structural equation modeling analysis

The objective of the SEM was to analyze the relationship between the variables and mental well-being and the desire to avoid pregnancy. The results of the SEM analysis indicated that only the model established with mental well-being was significant (Fig. 1).

In the model, mental well-being is the independent variable, the desire to avoid pregnancy is the dependent variable, and e1 refers to the residual. Table 3 presents the coefficients associated with the model.

Discussion

A review of the relevant literature revealed that women faced challenges related to accommodation and hygiene in the post-disaster period [26, 39]. Additionally, the present study revealed that a considerable proportion of women experienced earthquake-related damage to their residences, necessitating relocation. They encountered challenges in accessing food and beverages, alterations in their sleep patterns and dietary habits, reductions in their physical activity levels, and the loss of family members due to the earthquakes (Table 2). Such circumstances have been linked to an increased prevalence of mental health issues, including anxiety and depression, among women who have experienced earthquakes [23].

In the current research, a significant proportion of the participants exhibited alterations in their menstrual cycles, including prolonged menstrual cycles, an increase in the number of days during which they had menstrual bleeding, and the onset of intermenstrual bleeding (Table 1). A study conducted in the aftermath of the Wenchuan earthquake revealed that 30% of the female participants exhibited alterations in their menstrual cycles, with this phenomenon being more prevalent among those who had lost a child [40]. In a subsequent study conducted in the aftermath of the Wenchuan earthquake, it was observed that the duration of menstrual cycles exhibited a reduction among young women who were concurrently experiencing psychological distress [41]. It is acknowledged that alterations in the menstrual cycle may be linked to a number of factors, including stress. However, in the context of the present study, it is proposed that the stress induced by earthquakes is influenced by the variables that have been subjected to investigation. In instances of stress, the release of gonadotropins and gonadal steroid hormones is inhibited, which subsequently results in the disruption of the typical menstrual cycle. Prolonged exposure to stress can lead to complete deterioration of reproductive function [42]. As a matter of fact, natural disasters such as earthquakes, hurricanes, and floods can precipitate the onset of post-traumatic stress disorder [43]. In this context, it can be stated that the results of the current study are consistent with the results reported in the relevant literature.

Table 2 Comparison and percentage distribution of mean DAP scores of independent variables

In which province did you experience the earthquake?	*n*	%	DAP/Mean/SD	Test ve *p* değeri
Kahramanmaras	66	16.3	1.524 ± 1.030	F = 1.990
Malatya	200	49.4	1.630 ± 0.971	*p* = 0.115
Adiyaman	95	23.5	1.331 ± 1.067	
Hatay	44	10.9	1.626 ± 1.033	
Was your home damaged?				
Yes	140	34.6	1.447 ± 1.003	t=-0.266
No	265	65.4	1.723 ± 1.014	*p* = **0.009**
Did you have to go somewhere else?				
Yes	143	35.3	1.481 ± 0.980	t=-1.647
No	262	64.7	1.654 ± 1.069	*p* = 0.100
Did you have any housing problems?				
Yes	212	52.4	1.411 ± .938[a]	F = 3.876
No	120	29.6	1.664 ± 1.038[b]	*p* = 0.022 **a < b**
Sometimes	73	18	1.724 ± 1.140	
Where did you stay?				
Home	215	53.1	1.543 ± 1.016	F = 980
Container	91	22.5	1.475 ± 0.991	*p* = 0.418
Tent	27	6.7	1.420 ± 0.844	
Both tent and house	59	14.6	1.744 ± 1.108	
Both container and house	12	3	1.279 ± 1.047	
Did you have problems accessing food and beverages?				
Yes	144	35.6	1.389 ± .945[a]	F = 4.814
No	160	39.5	1.523 ± .990[b]	*p* = 0.009
Sometimes	101	24.9	1.792 ± 1.106[c]	**c > b > a**
Has your sleep pattern changed?				
Yes	374	92.3	1.509 ± 1.004	t=-2.189
No	31	7.7	1.9424 ± 1.062	*p* = 0.022
Have your eating habits changed?				
Yes	319	78.8	1.489 ± 1.002	t=-1.982
No	86	21.2	1.738 ± 1.039	*p* = 0.044
Has your physical activity level changed?				
Yes, it decreased	253	62.5	1.5152 ± 0.992	F = 951
Yes increased	56	13.8	1.4605 ± 1.03	*p* = 0.387
Unchanged	96	23.7	1.6629 ± 1.04	
Have you lost someone close to you?				
Yes	155	38.3	1.4899 ± 0.98677	t=-0.833
No	250	61.7	1.5754 ± 1.032	*p* = 0.410
Did you use antidepressants after the earthquake?				
Yes	57	14.1	1.1679 ± 0.852	t=-3.039
No	348	85.9	1.6041 ± 1.026	*p* = 0.003
Change in menstrual cycle				
Yes	210	51.9	1.502 ± 1.01	t=-0.829
No	195	48.1	1.586 ± 101	*p* = 0.407
Total	405	100		

DAP: Desire to Avoid Pregnancy, SD: standard deviation, t: independent samples t-test, F: ANOVA test

Moreover, it was discerned that the mean WEMWBS score obtained by women experiencing the earthquakes in the current study was 10–15 points lower than those obtained in studies conducted in the same region before the earthquakes [44, 45]. A meta-analysis study revealed the presence of post-traumatic stress disorder among survivors in the aftermath of the earthquake [46]. Considering that socioeconomic problems experienced along with changes in reproductive health in the post-earthquake period would lead to the emergence of clinical depression and anxiety [25], it can be said that the result of the current research is consistent with the relevant

Table 3 Results of linear regression analysis of DAP on significant variables

Independent Variable	β_1	β_2	*p*	t	R^2
Having a housing problem	0.131	0.173	0.008*	2.652	0.017
Damage to the house	0.130	0.276	0.009*	2.625	0.017
Having to go somewhere else	0.082	0.172	0.100	1.647	0.007
Change in sleep patterns	0.114	0.433	0.022*	2.295	0.013
Change in eating habits	0.100	0.248	0.044*	2.023	0.010
Change in physical activity	0.053	0.064	0.284	1.074	0.003
Losing a loved one	0.041	0.086	0.410	0.825	0.002
Use of psychiatric medication after the earthquake	0.150	0.436	0.003*	3.039	0.022
Problems accessing food and beverages	0.149	0.127	0.003*	3.035	0.022
Where he lived after the earthquake	0.022	0.019	0.657	0.444	0.000
Change in menstrual cycle	0.041	0.084	0.407	0.829	0.002

β_1; Standardized regression coefficients, β_2; Unstandardized regression coefficients, *$p<0,05$; t test result for the significance of the regression coefficients; DAP: Dependent variable

literature. Additionally, our findings are corroborated by the fact that 14.1% of the female participants responded affirmatively to the inquiry: "Did you start to use any psychiatric medication in the post-earthquake period?".

Furthermore, in comparing the mean DAP Scale scores of women in relation to the negative experiences they encountered in the post-earthquake period, it was observed that women who faced challenges in securing accommodation, women whose houses were damaged by earthquakes, and women who experienced changes in their daily routines exhibited lower DAP Scale scores than those who did not experience these problems. Additionally, women who experienced disturbances in their sleep patterns, women who experienced changes in their dietary habits, and women who used psychiatric medications exhibited lower mean DAP Scale scores than those who did not experience such problems. These differences between groups were statistically significant (Table 2). The results of the linear regression analysis were also in line with those of this analysis (Table 3).

The results of the analysis based on structural equation modeling revealed that mental well-being affected the desire to avoid pregnancy (Fig. 1). It is hypothesized that exposure to adverse circumstances may contribute to a decline in the mental well-being of women, which in turn may influence their decision to avoid pregnancy. The current research yielded a noteworthy result: it was hypothesized that women would be unlikely to consider becoming pregnant in the aftermath of such catastrophic earthquakes. Besides, a review of the relevant literature reveals that women with poor mental health are significantly more likely to engage in unsafe sexual practices, avoid using contraceptive methods [25, 46], fail to make healthy pregnancy planning, and are at an elevated risk of experiencing an unwanted pregnancy [26]. The results of the study conducted in the aftermath of the earthquake indicated that there was a correlation between pregnancy desire and several factors, including age, previous pregnancies, and contraceptive history [20]. A study conducted in Türkiye after the earthquake revealed a decline in contraceptive use among women and a reduction in the frequency of sexual intercourse [47]. It has been demonstrated that unplanned pregnancies result in a reduction in the level of antenatal care and birth assistance received by the mother, and an increase in the incidence of miscarriage and perinatal mortality [25, 48]. In light of the aforementioned findings, it is evident that politicians and service providers must prioritize the needs of women in the context of natural disasters.

Strengths and limitations of the research

Given that the research was conducted by a female academic based in a province that has been most severely affected by earthquakes, it is highly probable that her interpretations of the research results accurately reflect reality. A further strength of this study is that it makes a significant contribution to the development of the relevant literature on pregnancy intentions following earthquakes, a topic that has been under-researched to date. The present study is limited by its reliance on

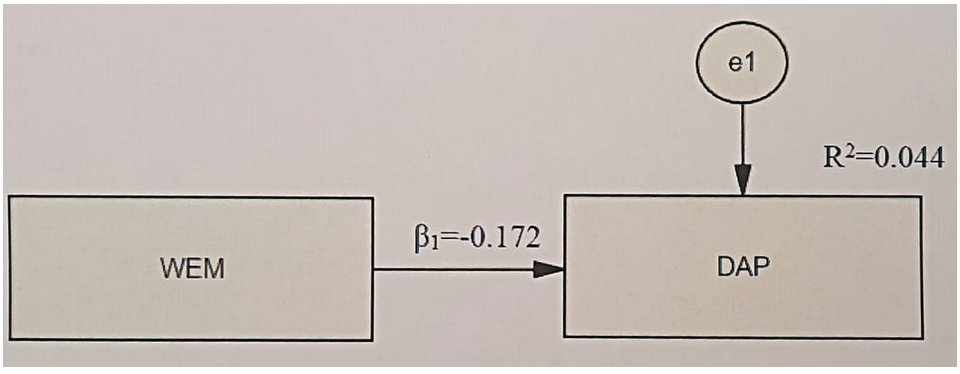

Fig. 1 The diagram on the Structural Equation Modeling about the relationship between mental well-being and the desire to avoid pregnancy

an interview form to examine women's menstrual cycle characteristics, which has not yet been tested for validity and reliability. Additionally, the inability to generalize the findings to the entire population and the collection of data exclusively online introduce further limitations to the study. The researcher encountered difficulties in accessing the volunteer participants due to the logistical challenges of conducting the research in the region most affected by the earthquake. The aforementioned circumstances precluded the extrapolation of the findings to the entire population. It is therefore imperative to conduct longitudinal studies with a substantial number of participants. Furthermore, it is essential to ascertain the reasons behind women's decisions to become pregnant or to refrain from doing so through in-depth qualitative research.

Conclusion

The mental health of women of reproductive age is negatively affected by the unfavorable conditions experienced in the post-earthquake period. Poor mental health can lead to unhealthy pregnancy planning. Therefore, health professionals working in the field of women's health should provide family planning counseling to women who experienced the earthquake. They should also facilitate referrals to specialists for mental health interventions.

Acknowledgements
I would like to thank the women who participated in the study and Assoc. Prof. Dr. Feyza İnceoğlu for providing statistical support.

Author contributions
Z.Ö conducted all stages of the research.

Funding
All costs of the study were covered by the researcher.

Data availability
On request, the author can provide the data if she sees fit.

Declarations

Ethics approval and consent to participate
Ethical endorsement for the research was obtained from the Scientific Research and Publications Ethics Committee of XXXX University of Türkiye. The data are kept in a way that only the researcher can access.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

Received: 22 April 2024 / Accepted: 23 August 2024
Published online: 09 September 2024

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