# RAMADAN FASTING AND HEALTH PERCEPTION AMONG PREGNANT MUSLIM WOMEN: A CROSS-SECTIONAL STUDY IN TURKEY


## ABSTRACT

**Objective:** This study was conducted to determine the relationship between Muslim women's fasting status during pregnancy and their perceptions of health.

**Methods:**This study is a cross-sectional descriptive study. The study was carried out on 250 pregnant women in a state hospital in Manisa. The study data were collected using two forms: "Pregnant's Information Form" and "Health Perception Scale".

**Results:** 70 pregnant women fasted and 180 pregnant women did not fast.There was a statistically significant difference between the average Health Perception Scale scores of the pregnant women regarding education, occupation, age at first marriage, socioeconomic status, the number of their pregnancy, number of children, and whether they made regular visits to doctors. It was observed that the average Health Perception Scale score was higher in the non-fasting group than in the fasting group.

**Conclusions:**It was determined that one in four pregnant women reported fasting during their pregnancy and that the fasting behavior of the pregnant women was influenced by their age, education level, occupation, family type, and whether they had a chronic disease. The total average Health Perception Score was higher in the non-fasting group than in the fasting group.



**Key Words:** Ramadan, Pregnancy, Fasting, Health Perception

## 1. INTRODUCTION

"Fasting during the Islamic month of Ramadan is a religious obligation for all healthy adult Muslims. This practice involves abstaining from all food and liquids from dawn until sunset for 29 or 30 consecutive days. Because the Islamic calendar is shorter than the solar calendar, Ramadan varies throughout the seasons. Therefore, the total period of fasting can range from less than 12 hours to up to 19 hours each day"[1].

"Fasting is obligatory for Muslims and is considered one of the Five Pillars of Islam. There are exemptions for elderly and sick people, for those who are travelling, and for pregnant, breastfeeding, and menstruating women"[2]. "Exemption from fasting is permitted for women who are pregnant or breastfeeding, but the missed fasts must be completed"[3]."Pregnant women may delay the fast if they fear for their health or the health of their baby. Like all Muslims who cannot fast, they must make up the missed days by fasting later, or in some cases, by feeding a poor person for each day that they did not fast"[1]. "However, like all Muslims, pregnant and lactating women also want to fast during this important month"[4]."Nevertheless, several studies have shown that most Muslim women choose to fast during pregnancy due to a sense of religious duty, familial support, positive views on fasting, and difficulty in completing the missed fasts at another time"[3, 5, 6]. Women feel that fasting has strong spiritual, emotional, physical, and social benefits; it is seen as a way of maintaining cultural identity and unity among their communities.

"Fasting causes high levels of anxiety about the health of both the mother and the baby"[4]. "The obstetric results of fasting pregnant women have been a matter of interest. However, studies have been limited in number"[4, 7, 8, 9]. "According to the results of the study, it was reported that fasting during pregnancy did not trigger urinary tract infection, did not reduce iron and ferritin levels in a pregnant woman with adequate iron stores, and did not affect maternal and fetal outcomes"[10].

"It is known that an individual's health behavior affects their beliefs, attitudes, and perceptions as well as science"[10]. "The fasting behavior of pregnant women is related to positive or negative perceptions of their own health. Health perception is defined as an individual's evaluation of their own health status; it is directly related to the acquisition and maintenance of health-promoting life behaviors"[11-12]. Pregnancy is a critical period in which women experience physiological and psychological changes. Exhibiting healthy

lifestyle behaviors during this period positively affects both the course of pregnancy and the health of the fetus [11].

Many Muslim women seek advice from health care practitioners regarding the safety of Ramadan fasting during pregnancy. However, the currently available information lacks clear guidelines and no such studies have been conducted in our region. In Manisa, the climate during the month of Ramadan is hot and the duration of the fast is long. Therefore, this study was conducted to determine the relationship between Muslim women's fasting status during pregnancy and their perception of health.

## 2. MATERIALS AND METHODS

A descriptive cross-sectional study was conducted on pregnant women in their third trimester who applied to the prenatal outpatient clinic to receive prenatal care between May 15 and June 15, 2018, at a hospital in Manisa, Turkey. The data were collected during the month of Ramadan. The inclusion criteria were Turkish pregnant women who: (1) were in of their pregnancy, (2) had at least primary school education, (3) spoke Turkish, (4) were a minimum of 18 years of age, and (5) had an uncomplicated pregnancy. Using a power level of 0.80, an alpha level of 0.05, and medium effect size, the estimated sample size was 250 and the study was conducted with 250 pregnant women who met the inclusion criteria in their third trimester. Participants were recruited while awaiting examination.

**Data collection instruments**

For the collection of research data, we used a Pregnant's Information Form, which consisted of 32 questions, and the Health Perception Scale. All data collection tools were used in Turkish, in a way the participant could understand.

***Pregnant's Information Form***

The Form consisted of questions about their socio-demographic and marital features, income status, residence, family type (nuclear, extended etc.) and educational background.

***Health Perception Scale***

This scale was developed by Diamond et al. Turkish validity and reliability were made by Kadioglu et al. [10]. The scale, which is a quintet likert type, consists of total 15 questions. It has four sub-dimensions: "control Center", "self-awareness", "certainty" and "importance of health". Each item in the scale is answered as "I agree (5)", "I agree (4)", "I am undecided (3)", "I disagree (2)", "I disagree at all (1)". Items 1, 5, 9, 10, 11 and 14 are positive, items 2, 3, 4, 6, 7, 8, 12, 13 and 15 are negative statements. Negative statements on the scale are scored inversely. Minimum 15 points and maximum 75 points are obtained from the scale. A

high score from the scale means that individuals perceive their health positively, and a low score means that they perceive their health negatively. Cronbach alpha value of the scale was found 0.77. Sub-dimension of the scale Cronbach Alpha Values: Control center 0,90; Self awareness 0.91; Certainty 0.91; importance of health is 0.82 [10]. In this study; the total Cronbach alpha value of the scale is 0.90.

**Application Procedure and Material**

In the study, the research was applied that Pregnant Women's Information Form, Health Perception Scale by using the face-to-face interview technique after the necessary explanations were made by the researcher. The data were collected within 30-45 minutes in total (Pregnant Women's Information Form 10-15 minutes on average, Breastfeeding Attrition Prediction Tool 10-15 minutes on average).

**Statistical Analysis**

All analyses were carried out using the SPSS for Windows, release 23 .0 (SPSS, Inc., Chicago, IL, USA). A p value of <0.05 was thought to be crucial for all analyses.Descriptive data are presented as number, percentage and mean. The Kolmogorov-Smirnov test was used in the tests for the normal distribution of the study distribution, and it was determined that it was not suitable for the normal distribution. The data gathered from the groups were compared with the Kruskal-Wallis H Test, Mann-Witney U Test and Chi-Square Tests.

## 3. RESULTS

A total of 250 pregnant women were included in this study; 70 women fasted and 180 women did not fast.

When considering the descriptive characteristics of the respondent pregnant women, the fasting behavior of the pregnant women was significantly influenced by their age, level of education, occupation, family type, and whether they had a chronic disease ($p < 0.05$). The pregnant women were found to have an average Health Perception Scale score of $59.21 \pm 9.35$ (min =15, max =75). There was a significant difference between Health Perception Scale score averages of pregnant women with different education levels, occupations, ages at first marriage, and socioeconomic status ($p < 0.05$) (Table 1).

When considering the obstetric characteristics of the respondent pregnant women, the fasting behavior of the pregnant women was not significantly influenced by their obstetric characteristics ($p > 0.05$). There was a significant difference between Health Perception Scale score averages of pregnant women with different numbers of pregnancies, numbers of children, and whether they had regular visits to doctors ($p < 0.05$) (Table 2).

The total average score of the Health Perception Scale was 55.24 ± 8.46 in the fasting group and 60.76 ± 9.24 in non-fasting group; there was a significant difference between these groups ($z = -4.377$, $p < 0.05$). The average total score on the Health Perception Scale was higher in the non-fasting group than in the fasting group (Table 3).

When the distribution of respondent pregnant women was considered regarding their fasting behavior characteristics, there was a significant difference between the average Health Perception Scale scores of pregnant women with different answers to the following prompts: "Fasting this year during pregnancy", "Religious perspective on fasting during pregnancy", "Is fasting during pregnancy harmful to the baby?", "Is fasting during pregnancy for pregnant women?", "Are there people who recommend fasting during pregnancy?", "Do you recommend fasting during pregnancy?", "Is it possible to fast in all trimesters of pregnancy?", and "Is it possible to fast while breastfeeding?" ($p < 0.05$) (Table 3).

## 4. DISCUSSION

Fasting during the month of Ramadan is a very common form of worship in regions such as Turkey where the Muslim population is high. Considering that 99.2% of Turkey is Muslim, according to 2021 data, it is highly likely that women will spend the month of Ramadan pregnant [13]. The Islamic rulings regarding exemption from fasting during the month of Ramadan for menstruating, breast feeding, and pregnant women are very clear; however, a number of women continue to fast during the holy month [2].

According to a Hadith, “Allah has relieved the traveler of obligation of fasting and half of prayers and he has relieved the pregnant and nursing women of obligation of fasting”. Anecdotal evidence suggests that this requirement prevents many pregnant women from opting out of the fast. However, many women still decide to fast, while others remain more cautious about this practice [14]. For this reason, it is important to study fasting behavior during pregnancy. This study was conducted to determine the relationship between Muslim women's fasting status during pregnancy and their perceptions of health.

The following data have been reported on the number of pregnant women who fast during Ramadan: in Hossain et al.’s (2021) research, it was revealed that the prevalence of women fasting during pregnancy was 57.2%;in a study by Safari et al. (2019), it was 85.16%; in the study by Lou and Hammoud (2016), it was 30%; in a study by Mubeen et al. (2012), it was 43%; in a study by Savitr et al. (2014), half of the women adhered to Ramadan fasting; and in Joosoph et al.'s (2004) research, it was 33%[2, 3, 6, 14, 15, 16].

In our study, it was determined that 28% of pregnant women fasted during pregnancy. When the results of the study were evaluated, it was found that they were similar to the results of a study conducted by Hossain et al. (2021) and Safari et al. (2019) on pregnant women; however, both studies had higher values than in our study[2, 15].This difference is thought to be due to differences across regions and groups in which the research was applied.

In our study, the fasting behavior of the pregnant women was influenced by their age, level of education, occupation, family type, and whether they had a chronic disease. In Safari et al.'s (2019) research, it was revealed that the decision to fast during pregnancy was negatively associated with the mother's educational level and occupation; with an increase in education level and frequency of work, fewer mothers fasted[15]. Nusrat et al. (2017) revealed that the mothers in a fasting group had lower education levels[17].In Petherick et al.'s (2014) research, it was revealed that the decision to fast during pregnancy was found to be negatively associated with the mother's age and educational level; as both age and education levels increased, the likelihood of fasting was reduced[18].When the studies are evaluated, it can be said that women who fasted for the full period of Ramadan exhibited different socioeconomic characteristics than their non-fasting peers.

In our study, there was a significant difference between the average Health Perception Scale scores of the pregnant women regarding their level of education, occupation, age at first marriage, and socioeconomic status.In Akca et al.'s (2020) research, it was revealed that pregnant women with different education levels, occupations, and socioeconomic status had significantly different Health Perception Scale score averages[11].In Gür and Sunal's (2019) research, it was revealed that pregnant women had significantly different Health Perception Scale score averages depending on their marital status, occupation, and whether they had a chronic disease[19]. In Türe Yılmaz et al.'s (2018) research, a significant difference was observed between Health Perception Scale score averages of women at different ages, education levels, marital status, and chronic disease status[20]. In Al-Windi et al.'s (2002) research, it was revealed that education and socioeconomic status significantly influenced Health Perception Scale score averages[21].Therefore, the results of this study are consistent with the literature.

In our study, there was a significant difference between the Health Perception Scale score averages of pregnant women with different numbers of pregnancies, numbers of children, and whether they had regular visits to doctors ($p < 0.05$).In Akca et al.'s (2020) research, it was revealed that Health Perception Scale score averages were significantly

different in pregnant women depending on the number of pregnancies and miscarriages they had[11].The results of the two studies were in parallel.

Health is a dynamic process in which individuals maintain their well-being by adapting to changes in their internal and external environments. It has been reported that individual perceptions of health are affected by the health behaviors, beliefs, personal experiences, and factors that affect the health of the person [22]. This includes fasting during the month of Ramadan. Therefore, the health behaviors exhibited during pregnancy and the health perceptions of pregnant women are important [11].

In our study, it was determined that the total average Health Perception Scale score was 55.24 ± 8.46 in fasting group and 60.76 ± 9.24 in non-fasting group, and a significant difference was observed. It was observed that the average total Health Perception Scale score was higher in the non-fasting group than in the fasting group. In this study, the average Health Perception Scale score of the non-fasting pregnant women was evaluated as "good". Perceptions of individuals affect their fasting behavior.

Although most pregnancies are uneventful, all pregnancies present a risk [23]. Therefore, the health behaviors exhibited during pregnancy and the health perceptions of pregnant women are important. Exemption from fasting is permitted for women who are pregnant or breastfeeding, but the missed fasts must be completed before the next Ramadan [3]. Nevertheless, several studies have shown that most Muslim women choose to fast during pregnancy due to a sense of religious duty, familial support, positive views on fasting, and difficulty in completing the missed fasts at another time [3,5]. It is important to mention that Muslim women are exempted from fasting as per the religion. However, data from around the world suggest that around 90% of the women fast for at least some period during the holy month of Ramadan to take part in the religious experience [8, 16, 24]. This observation indicates that women feel that they receive strong spiritual, emotional, physical, and social benefits from fasting; furthermore, fasting is seen as a way of maintaining cultural identity and unity among their communities [1, 3].

## 5. CONCLUSION

Turkey is a Muslim country where a majority of the people practices fasting during the month of Ramadan. Women constitute more than half of the population.In our region, there is a paucity of studies focusing on the frequency and factors influencing fasting during Ramadan. In summary, even in a small geographic area, there are differences among patients regarding their perceptions, motivations, and the influences on their beliefs and behaviors.

As a result of the research, it was determined that one in four pregnant women reported fasting during their pregnancy, and the fasting behavior of the pregnant women was influenced by their age, level of education, occupation, family type, and whether they had a chronic disease. Furthermore, the average total Health Perception Scale score was higher in the non-fasting group than in the fasting group.

There is need to conduct large, population-based studies to provide a consensus on what factors affect Ramadan fasting frequency. These studies can be conducted on country-wise basis and by different institutions. This further research would help health care professionals in providing clear guidelines to pregnant women about the risks of fasting. Furthermore, there is a need to plan follow-up studies on the newborns to better understand the long-term effects of maternal fasting.

**Strengths and Limitations**

The study is valuable because it explores a topic with limited research, particularly in the context of Turkey. The findings contribute to understanding how fasting during Ramadan affects pregnant women's health behaviors, which can be beneficial for healthcare providers who work with Muslim populations. The article's strengths lie in its culturally specific focus and use of a validated scale (Health Perception Scale). However, I believe the manuscript could benefit from a deeper analysis of the psychological and social motivations behind fasting during pregnancy and how these factors interact with health perception.

The study has several limitations. First, the socio-demographic characteristics of the women making up the sample could be regarded as a limitation of the study. Second, the study is that the scale is in Turkish. Finally, the cross-sectional and descriptive design of the study limits conclusions about causality for some findings.

**Ethics approval and Consent**

The necessary written permissions for using the "Health Perception Scale" were obtained from Kadioglu, who developed. Manisa Directorate of Public Health approved the study protocol. This research was approved by the Ethical Board of University. The participants were recruited to the study on a voluntary basis. Before any meetings took place, the researchers informed the participants about the purpose, length and benefits of the study, and the written, informed consent of the participants was obtained.

**Disclaimer (Artificial intelligence)**

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

**ACKNOWLEDGMENTS**

We would like to express our gratitude to the practitioners who assisted with the study and women who kindly filled out their questionnaires and returned the forms.

**FUNDING**

This research was not funded.

**CONFICT OF INTEREST**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**REFERENCES**

1. Robinson T, Raisler J. Each one is a doctor for herself: Ramadan fasting among pregnant Muslim women in the United States. Ethn Dis. 2005; 15(1): 99-103.
2. Hossain N, Samuel M, Mughal S, Shafique K. Ramadan fasting: Perception and maternal outcomes during Pregnancy. Pakistan Journal of Medical Sciences. 2021; 37(5): 1262.
3. Lou A, Hammoud M. Muslim patients' expectations and attitudes about Ramadan fasting during pregnancy. International Journal of Gynecology & Obstetrics. 2016; 132(3): 321-324.
4. Altunkeser A.The effect of Ramaddan fasting on fetal/obstetric B-mode and Doppler ultrasound findings. Ortadogu Medical Journal. 2018; 10 (1): 1-7.
5. Cross-Sudworth F. Effects of Ramadan fasting on pregnancy. Br J Midwifery. 2007; 15(2):79–81.
6. Joosoph J, Abu J, Yu SL. A survey of fasting during pregnancy. Singapore Medical Journal. 2004; 45(12):583-586.

7. Savitri A I, Painter R C, Lindeboom M, Roseboom T J, Van Ewijk R J. Ramadan exposure and birth outcomes: A population-based study from the Netherlands. Journal of Developmental Origins of Health and Disease. 2020; 11(6): 664-671.
8. Parveen R, Khakwani M, Latif M, Tareen A U. Maternal and Perinatal outcome after Ramadan Fasting. Pakistan Journal of Medical Sciences.2020; 36(5); 894-898
9. Dikensoy E, Balat O, Cebesoy FB, Ozkur A, Çiçek H, Can G. Does Ramadan cause iron deficiency in pregnant patients? Journal of Perinatology.2008; 16(3):100-103. e-Adres: http://www.perinataldergi.com/20080163004)
10. Kadioglu H, Yildiz A. Validity and reliability of Turkish version of perception of health scale. Turkey Clinics. Journal of Medical Sciences.2012; 32(1):47-53
11. Akça E, Sürücü S G, Akbaş M. Health perception, health literacy and related factors in pregnant women. Journal of İnönü University Vocational School of Health Services.2020; 8(3): 630-642.
12. Yağmur Y, Keskin F. Investigation of Women Usage of Family Planning Methods and Perceptions of Health in Postpartum Period. Journal of İnönü University Vocational School of Health Services.2019; 7(2), 137-146.
13. World Population Review. https://worldpopulationreview.com/country-rankings/muslim-population-by-country Date of access: 21.11.2021
14. Mubeen S M, Mansoor S, Hussain A, Qadir S. Perceptions and practices of fasting in Ramadan during pregnancy in Pakistan. Iranian Journal of Nursing and Midwifery Research.2012; 17(7): 467-471.
15. Safari K, Piro T J, Ahmad H M. Perspectives and pregnancy outcomes of maternal Ramadan fasting in the second trimester of pregnancy. BMC Pregnancy and Childbirth.2019; 19(1): 1-10.
16. Savitri A I, Yadegari N, Bakker J, van Ewijk R J, Grobbee D E, Painter R C, Uiterwaal C S M P, Roseboom T JRamadan fasting and newborn's birth weight in pregnant Muslim women in The Netherlands. British Journal of Nutrition.2014; 112(9): 1503-1509.
17. Nusrat U, Rabia S, Tabassum R, Rafiq S. Beliefs and practices of fasting in Ramadan among pregnant women. Gomal J Med Sci. 2017; 15(4):168–71.
18. Petherick E S, Tuffnell D, Wright J. Experiences and outcomes of maternal Ramadan fasting during pregnancy: results from a sub-cohort of the Born in Bradford birth cohort study. BMC Pregnancy and Childbirth. 2014; 14(1): 1-9.

19. Gür G, Sunal N. Determination of health perception and healthy lifestyle behaviors in coronary artery patients. HSP.2019; 6(2): 210-219.
20. Türe Yılmaz A, Çulha İ, Kersu Ö, Gümüş D, Ünsal A, Köşgeroğlu N. Affecting Factors and Health Perceptions of Surgical Patients.The Journal of Academic Social Science.2018; 6(68): 89-99.
21. Al-Windi A, Dag E, Kurt S. The influence of perceived well-being and reported symptoms on health care utilization: A population-based study. J Clin Epidemiol.2002; 55(1): 60-6.
22. Alkan S A, Özdelikara A, Boğa N M. Determination of nursing students‟ health perception. Gumushane University Journal of Health Sciences.2017; 6(2): 11-21.
23. World Health Organization. (2004). Making pregnancy safer: The critical role of the skilled attendant. a joint statement by WHO, ICM and FIGO. World Health Organization.
24. Rezk M A A, Sayyed T, Abo-Elnasr M, Shawky M, Badr H. Impact of maternal fasting on fetal well-being parameters and fetal–neonatal outcome: A case–control study. J Matern Fetal Neonatal Med. 2016;29(17):2834-2838. doi: 10.3109/14767058.2015.1105955



**Table 1. Comparison of Some Descriptive Characteristics of the Women According to Health Perception Scale Score Averages and Fasting Behavior**

| Socio-demographic Characteristics | | Fasting | Non-fasting | | Health Perception Scale Score Averages | |
|---|---|---|---|---|---|---|
| | | n (%) | n (%) | p | X± SD | p |
| **Age** **X± SD** 26.52±5.00 Min:17 Max:45 | 25 age and below | 106 (42.4) | 38 (54.3) | **0.00** [d] | 59.32±8.83 | z:-0.07[a] p:0.94 |
| | 26 age and above | 144 (57.6) | 32 (45.7) | | 59.13±9.74 | |
| **Education** | Middle school and below | 147 (58.8) | 54 (77.1) | **0.00** [d] | 56.52±9.05 | z:-5.69[a] **p:0.00** |
| | High school and above | 103 (41.2) | 16 (22.9) | | 63.05±8.41 | |
| **Occupation** | Worker | 39(15.6) | 2(2.9) | **0.00**[c] | 63.05±9.59 | z:-3.09[a] |
| | Housewife | 211 (84.4) | 68 (97.1) | | 58.50±9.15 | **p:0.00** |
| **First Marriage Age** **X± SD** 22.04±3.76 Min:14 Max:36 | 22 age and below | 146 (58.4) | 50 (71.4) | **0.00** [d] | 57.91±8.89 | z: -2.99[a] **p:0.00** |
| | 23 age and above | 104 (41.6) | 20 (28.6) | | 61.03±9.70 | |
| **Family Type** | Nuclear Family | 214 (85.6) | 54 (77.1) | 0.10[c] | 59.47±9.35 | z:-1.11[a] p:0.26 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Extended Family | 36(14.4) | 16 (22.9) | | 57.66±9.32 | |
| **Socioeconomic Status** | Low | 8 (3.2) | 1 (1.4) | 0.65[d] | 49.62±10.02 | $x^2$:19.79[b] **p:0.00** |
| | Middle | 73 (29.2) | 19 (27.1) | | 62.49±9.23 | |
| | Well | 169 (67.6) | 50 (71.4) | | 58.25±8.88 | |
| **Having a Chronic Disease** | Yes | 14 (5.6) | 1 (1.4) | **0.02**[c] | 60.78±8.58 | z:-0.51[a] p:0.61 |
| | No | 236 (94.4) | 69 (98.6) | | 59.12±9.40 | |
| **Smoking Status** | Yes | 9 (3.6) | 2 (2.9) | 0.19[d] | 58.44±8.81 | $x^2$:0.43[b] p:0.80 |
| | No | 234 (93.6) | 67 (95.7) | | 59.28±9.39 | |
| | Sometimes | 7 (2.8) | 1 (1.4) | | 57.85±9.75 | |
| **TOTAL** | | **250 (100.0)** | **70 (100.0)** | | **59.21±9.35** | |

[a]Mann Whitney U Testi [b]Kruskal Wallis H Testi [c]Fisher's Exact Test [d]Pearson Chi- Square

**Table 2. Comparison of Some Obstetric Characteristics of the Women According to Health Perception Scale Score Averages and Fasting Behavior**

| **Obstetric Characteristics** | | **Fasting** | **Non-fasting** | | **Health Perception Scale Score Averages** | |
|---|---|---|---|---|---|---|
| | | **n (%)** | **n(%)** | | **X± SD** | **p** |
| **Pregnancy Week X± SD** 33.07±5.57 Min:15 Max:40 | 33. week and below | 110(44.0) | 34(48.6) | 0.36[d] | 60.17±9.50 | z:-1.6[a] p:0.10 |
| | 34 week and above | 140(56.0) | 36(51.4) | | 58.46±9.19 | |
| **Number of Pregnancy** | First pregnancy | 107(42.8) | 30(42.9) | 0.76[d] | 61.89±8.74 | z:-4.00[a] **p:0.00** |
| | 2 and above | 143(57.2) | 40(57.1) | | 57.20±9.31 | |
| **Number of children** | Childless | 119(47.6) | 32(45.7) | 0.77[d] | 61.47±9.03 | $x^2$:7.20[b] **p:0.00** |
| | 1 child | 81 (32.4) | 26(37.1) | | 58.87±8.96 | |
| | 2 and above | 50 (20.0) | 12(17.1) | | 54.40±8.97 | |
| **Regular Visits to** | Yes | 242(96.8) | 66(94.3) | 0.21[c] | 59.49±9.20 | z:-2.37[a] |

| | | | | | |
|---|---|---|---|---|---|
| **Doctors** | | | | | **p:0.01** |
| | No | 8 (3.2) | 4(5.7) | 50.75±10.41 | |
| **TOTAL** | | **250** | **70** | 59.21±9.35 | |
| | | **(100.0)** | **(100.0)** | | |

[a]Mann Whitney U Testi [b]Kruskal Wallis H Testi [c]Fisher's Exact Test [d]Pearson Chi- Square



**Table 3. Comparison of Pregnant' Fasting Behaviors and Health Perception Scale Score Averages**

| | | Health Perception Scale Score Averages | | |
|---|---|---|---|---|
| **Characteristics** | | **n (%)** | **X± SD** | **p** |
| **Fasting status** | Yes | 70(28.0) | 55.24±8.46 | z:-4.377[a] |
| | No | 180(72.0) | 60.76±9.24 | **p:0.00** |
| **Fasting in previous pregnancies (n:143)** | Yes | 43 (30.1) | 62.19±9.02 | z:-1.86[a] |
| | No | 100 (69.9) | 76.22±9.31 | p:0.06 |
| **Fasting this year during pregnancy** | Yes | 70 (28.0) | 55.78±8.12 | z:-3.94[a] |
| | No | 180 (72.0) | 60.55±9.47 | **p:0.00** |
| **Religious perspective on fasting during pregnancy** | Fasting during pregnancy is an obligation | 36 (14.4) | 55.63±8.56 | |
| | Fasting during pregnancy is not an obligation | 120 (48.0) | 62.36±9.15 | $x^2$:29.78[b] **p:0.00** |
| | It is left to the decision of the pregnant | 94 (37.6) | 56.56±8.62 | |
| **Is fasting during pregnancy harmful to the baby?** | Yes | 149 (59.6) | 60.70±9.24 | z:-3.16[a] |
| | No | 101 (40.4) | 57.01±9.11 | **p:0.00** |
| **Is fasting during pregnancy harmful for pregnant women?** | Yes | 79 (31.6) | 62.00±9.34 | z:-3.46[a] |
| | No | 171 (68.4) | 57.92±9.09 | **p:0.00** |

| | | | | |
|---|---|---|---|---|
| **Are there people who recommend fasting during pregnancy?** | Yes | 15 (6.0) | 51.73±8.89 | z:-3.00[a] **p:0.00** |
| | No | 235 (94.0) | 59.69±9.19 | |
| **Do you recommend fasting during pregnancy?** | Oruç tutabilir. | 80 (32.0) | 55.27±8.13 | $x^2$:28.72[b] **p:0.00** |
| | Oruç tutamaz. | 151 (60.4) | 61.58±9.32 | |
| | Fikrim yok | 19 (7.6) | 57.00±8.58 | |
| **Is it possible to fast in all trimesters of pregnancy?** | Yes | 51 (20.4) | 54.31±8.31 | z:-4.33[a] **p:0.00** |
| | No | 199 (79.6) | 60.47±9.20 | |
| **Is it possible to fast while breastfeeding?** | Yes | 60 (24.0) | 54.16±8.49 | z:-4.79[a] **p:0.00** |
| | No | 190 (76.0) | 60.81±9.05 | |
| **TOTAL** | | **250 (100.0)** | 59.21±9.35 | |

[a]Mann Whitney U Testi [b]Kruskal Wallis H Testi