



Factors Affecting Pregnant Women's Decision-making and Healthy Lifestyle Behaviors via the Internet

Endam Çetinkaya Ak¹, Sabriye Uçan Yamaç¹, Nazife Bakır²

¹Department of Midwifery, Burdur Mehmet Akif Ersoy University, Bucak School of Health, Burdur, Türkiye

²Department of Maternity and Women's Health Nursing, Burdur Mehmet Akif Ersoy University, Bucak School of Health, Burdur, Türkiye

Abstract

Introduction: This study aims to determine pregnant women's access to health information and decision-making through the internet, their healthy lifestyle behaviors, and the factors affecting them.

Methods: This cross-sectional descriptive study was conducted in two public hospitals located in the Mediterranean region of Türkiye. The sample consisted of the volunteer pregnant women aged 18 and over. Data were collected using the "Personal Identification Form, Internet Decision-making in Pregnancy Scale, and Healthy Lifestyle Behaviors in Pregnancy Scale," via face-to-face surveys. Descriptive statistics, independent sample t-test, analysis of variance, and Bonferroni post hoc tests were used in the analysis of data.

Results: The study included 367 pregnant women. The pregnant women's decision-making score through the internet was found to be at a medium level (38.00 ± 7.25), while the healthy life behavior score was found to be at a high level (115.47 ± 15.26). Nutrition had the highest sub-dimension mean, while physical activity had the lowest. Variables such as age, education status, income level, number of pregnancies, prenatal education, and health check-ups significantly affected the scale scores ($p < 0.05$).

Discussion and Conclusion: The research results show that individual and environmental variables during pregnancy affect both access to health-related information and lifestyle behaviors. Therefore, it is important to expand prenatal education for pregnant women, provide targeted health counseling to socioeconomically disadvantaged groups, and direct them to the right digital resources. While previous studies have mainly examined Internet use or healthy living behaviors separately, this study addresses both dimensions simultaneously, thus filling an important gap in the literature.

Keywords: Health behavior; Health literacy; Internet use; Pregnancy

Although pregnancy is a natural process in a woman's life, it is a critical period where physical and psychological changes are experienced intensely. The steps taken during this process directly affect both maternal and fetal health.^[1] Considering that the foundations of health are laid with pregnancy, the

healthy course of this period is closely related to the mother's lifestyle, health attitude, and decision-making processes.^[2] Exhibiting healthy lifestyle behaviors from the pre-pregnancy period not only reduces complications but also protects the mother and baby during birth and postpartum.^[3,4]

Cite this article as: Çetinkaya Ak E, Yamaç SU, Bakır N. Factors Affecting Pregnant Women's Decision-making and Healthy Lifestyle Behaviors via the Internet. Lokman Hekim Health Sci 2026;6(3):401–408.

Correspondence: Endam Çetinkaya Ak. Burdur Mehmet Akif Ersoy Üniversitesi, Bucak Sağlık Yüksekokulu, Ebelik Bölümü, Burdur, Türkiye

E-mail: ecetinkaya@mehmetakif.edu.tr **Submitted:** 09.07.2025 **Revised:** 03.11.2025 **Accepted:** 19.12.2025 **Available Online:** 06.08.2026



OPEN ACCESS This is an open access article under the CC BY-NC license (<http://creativecommons.org/licenses/by-nc/4.0/>).



Healthy lifestyle behaviors are key for disease prevention, early diagnosis, and maintaining health.^[5] Adopting these behaviors during pregnancy increases women's control over their health and contributes to life satisfaction. In this context, awareness, knowledge, and decision-making skills gain importance.^[6,7]

With advances in communication technologies, pregnant women use the internet extensively for health information. Studies show that most expectant mothers frequently rely on online sources.^[8–10] The most searched topics include fetal development, birth methods, gestational week changes, baby care, and the postpartum period.^[11,12]

The main reason for this frequent use is the easy and instant access to information.^[13,14] However, the accuracy and reliability of online content cannot always be guaranteed. Especially individuals with low health literacy may have difficulties making decisions when faced with contradictory information, which increases anxiety.^[12,15,16]

Kiarie and Mugambi found that many pregnant adolescents spend more than 4 h daily on the internet.^[17] Similarly, Peragallo Urrutia et al.^[18] and Tori and Evrenol Öçal^[19] reported that women often prefer online resources over professionals. Thus, the internet has become not only a source of information but also a platform for experience sharing among expectant mothers.^[20–22] However, this can lead to disinformation and confusion, highlighting the need for professional guidance.^[5,23]

Midwives and nurses play a key role in evaluating and supporting lifestyle behaviors during pregnancy. Technological advances have expanded their guidance roles, making digital environments effective for support.^[6,14] In this context, directing women to reliable resources is as crucial as professional counseling itself.^[23] However, the literature reveals that while many studies have investigated internet use during pregnancy or healthy lifestyle behaviors, very few have integrated these two aspects. In particular, there is limited evidence from Türkiye examining the combined impact of internet-based decision-making and lifestyle practices. This study was designed to address this gap.

In this study, "decision-making via the Internet" refers to the process by which pregnant women search for, evaluate, and apply online health information in relation to prenatal care, lifestyle behaviors (e.g., nutrition and physical activity), and delivery preferences. It is therefore understood as a multidimensional construct linking digital information seeking with practical health-related decisions during pregnancy. This study aimed to evaluating pregnant women's internet-based decision-making, their healthy lifestyle behaviors, and influencing factors.

Materials and Methods

Study Place, Design and Type

Data were collected for one month in two state hospitals in the Mediterranean Region. This study was designed as a cross-sectional descriptive research to determine pregnant women's internet-based decision-making, healthy lifestyle behaviors, and related factors.

Participants

The study population consisted of pregnant women aged 18 and over who visited the two hospitals where the study was conducted during the study period. Participants were selected using a convenience (non-probability) sampling method. Before data collection, a priori power analysis was conducted with the G*Power 3.1.9.7 program to estimate the approximate number of participants that would ensure sufficient statistical power (Appendix 1: Power Analysis Report). The analysis was based on a confidence level of $\alpha=0.05$, power $(1-\beta)=0.95$, and an effect size of $f=0.20$, which is considered medium-sized according to Cohen's (1988) classification.^[24] This selection was also justified by considering the effect size values used in similar studies in the literature.^[1,5,6] Under these conditions, the required sample size was calculated as $n=312$. In total, data were collected from 367 pregnant women who met the inclusion criteria and agreed to participate. However, since the sample was obtained through convenience sampling, it may not be fully representative of the target population, and this constitutes a limitation of the study.

Data Collection Tools

Individual Diagnostic Form

Prepared by researchers through a literature review, this form included 20 questions on sociodemographic and obstetric characteristics, tobacco, and alcohol use.^[1–10]

Internet Decision-Making Scale in Pregnancy

Developed by Koyun and Erbektaş, this 10-item, two-dimensional scale evaluates self-efficacy and self-control in decision-making processes during pregnancy. It is scored on a five-point Likert scale, where higher scores indicate a greater level of decision-making influenced by the internet (i.e., higher reliance on internet-based information when making pregnancy-related decisions). The minimum score from the scale is 10, and the maximum score is 50. The original Cronbach's alpha coefficient of the scale was 0.85.^[25] In

this study, Cronbach's alpha values were recalculated for this sample ($n=367$) and found to be 0.85 for the total scale, 0.87 for the self-efficacy subscale, and 0.88 for the self-control subscale.

Healthy Lifestyle Behaviors Scale in Pregnancy

Developed by Yilmaz and Karahan, this 29-item scale includes six subscales: responsibility, hygiene, nutrition, physical activity, travel, and pregnancy acceptance. It is scored on a five-point Likert scale, and higher scores indicate more positive health-promoting behaviors. A minimum of 29 points and a maximum of 145 points can be obtained from the scale. The original Cronbach's alpha coefficient for the total scale was 0.83; 0.71 for pregnancy responsibility, 0.64 for hygiene, 0.72 for nutrition, 0.69 for physical activity, 0.80 for travel, and 0.63 for acceptance of pregnancy for subscales.^[26] In this study, Cronbach's alpha coefficients were recalculated for this sample ($n=367$) and were found to be 0.77 for the total scale; 0.91 for pregnancy responsibility, 0.90 for hygiene, 0.87 for nutrition, 0.77 for physical activity, 0.78 for travel, and 0.88 for acceptance of pregnancy for subscales.

Data Collection

Pregnant women who met the criteria, gave consent, and completed the forms were included. Surveys were conducted face-to-face and consisted of "Informed Consent Form," "Individual Diagnostic Form," "Internet Decision Making Scale in Pregnancy" and "Healthy Lifestyle Behaviors Scale in Pregnancy." Completion time was 10–15 min.

Statistical Analyses

IBM Statistical Package for the Social Sciences (SPSS) Statistics 25.0 package program (IBM Corp., Armonk, NY, USA) was used for data analysis. Statistical methods such as unit number (n), percentage (%), mean ($\bar{X}$), and standard deviation (SD) were used in the analysis of descriptive data of the study. The Kolmogorov–Smirnov test was used to assess whether the data were normally distributed. Since the Skewness and Kurtosis coefficients for all variables were between (-1.5 and $+1.5$), it was determined that the data met the normality condition. Independent Samples t-test and One-way analysis of variance with Bonferroni post hoc were applied. Bonferroni post hoc tests were performed, and SPSS automatically adjusted p-values to control for Type I error. When the p-value obtained in the comparisons between variables was <0.05 , the analysis was considered statistically significant.

Ethical Considerations

Ethics approval was obtained from Burdur Mehmet Akif Ersoy University Non-Interventional Clinical Research Ethics Committee (Decision No: GO 2024/847, Date: 03.12.2024). Written consent was secured; the study complied with the Declaration of Helsinki.

Results

The study included 367 pregnant women. The distribution of pregnant women according to their introductory characteristics is given in Table 1. Of the 367 pregnant women who participated in the study, 38.7% were between the ages of 19 and 25, 38.7% were between the ages of 26 and 32, and 22.6% were between the ages of 33 and 39. When the level of education is examined, it is seen that the highest rate belongs to high school graduates (47.4%), followed by those with university and higher education levels (27.5%). These findings indicate that the sample is relatively homogeneous in terms of education level. The vast majority of women (80.1%) are unemployed and are housewives.

The income of 72.5% of the participants is equal to their expenses; while approximately half live in district centers (49.6%), 42.5% live in the city center, and 7.9% live in rural areas such as villages and towns. This distribution allows for potential comparisons regarding geographical differences in internet access and opportunities to obtain information. When evaluated in terms of family type, it is seen that the nuclear family structure is dominant in 91.6%.

It was seen that 37.9% of the women were in their second pregnancy, 14.7% had experienced a miscarriage/abortion before. In addition, 73.3% were having a planned pregnancy, 68.4% had a pre-pregnancy health check-up, and 67.8% had received prenatal education in their current pregnancy. This may indicate that a considerable portion of pregnant women in the study are relatively conscious and proactive in their health-related decision-making processes. The rates of tobacco and alcohol use among pregnant women are quite low at 12.8% and 4.9%, respectively.

The mean scale scores of the pregnant women are given in Table 2. The mean "Perception of Self-Efficacy" of the sub-dimensions of the scale for decision-making through the internet in pregnancy was found to be 18.57 ± 4.00 , and the mean "Perception of Self-Control" was found to be 19.42 ± 3.73 . The total mean score of the scale was 38.00 ± 7.25 , and the total scores ranged from a minimum of 21 to a maximum of 50 points. These values suggest that pregnant women generally feel moderately

Table 1. Descriptive characteristics of the participants

Individual characteristics	n	%	Individual characteristics	n	%
Age			Number of pregnancies		
19–25	142	38.7	First	124	33.8
26–32	142	38.7	Second	139	37.9
33–39	83	22.6	Three and above	104	28.3
Education status			Number of births		
Primary school	34	9.3	0	138	37.6
Middle school	58	15.8	1	134	36.5
High school	174	47.4	2 and above	95	25.9
University and above	101	27.5	Miscarriage/abortion status		
Working status			No	313	85.3
Yes	73	19.9	Yes	54	14.7
No	294	80.1	Is your pregnancy planned?		
Place of residence			Yes	269	73.3
Village-town	29	7.9	No	98	26.7
District	182	49.6	Pre-pregnancy health check status		
Province	156	42.5	Yes	251	68.4
Years of marriage			No	116	31.6
0–4 years	193	52.6	Prenatal education status during current pregnancy		
5–9 years	133	36.2	Yes	249	67.8
10 and above	41	11.2	No	118	32.2
Family income status			Tobacco and tobacco products usage		
Income is less than expenses	56	15.3	Yes	47	12.8
Income is equal to expenses	266	72.5	No	320	87.2
Income is more than expenses	45	12.3	Alcohol use status		
Family type			Yes	18	4.9
Nuclear family	336	91.6	No	349	95.1
Extended family	31	8.4	Total	367	100.0

competent and in control when obtaining health-related information over the Internet.

The total mean score of the scale for healthy living behaviors in pregnancy was 115.47 ± 15.26 , and the highest mean was seen in the sub-dimension of “Nutrition” (32.60 ± 6.52), and the lowest mean was seen in the sub-dimension of “Physical Activity” (10.58 ± 2.31). This may indicate that pregnant women develop more positive behaviors in terms of nutrition, but their physical activity levels are relatively low. Hygiene (17.46 ± 2.87), pregnancy responsibility (18.29 ± 2.37), pregnancy acceptance (17.14 ± 3.08), and travel (19.38 ± 3.40) scores indicate moderately positive behaviors. The total score average shows that healthy life behaviors are generally at a good level.

Appendix 2 and 3 show the significant differences between the scores of the pregnant women from the two scales

according to their individual and sociodemographic characteristics. These differences are discussed according to the prominent groups as follows:

In the study, as age increases, both the level of decision-making through the internet ($F: 6.285$, $df: 2$, $p < 0.05$) and healthy life behavior scores ($F: 5.562$, $df: 2$, $p < 0.05$) increase significantly. It is seen that especially the 33–39 age group received higher scores than the 19–25 age group. This may suggest that life experience and cognitive awareness, which increase with age, could positively affect decision-making processes.

Women with a middle school education received the highest scores in decision-making through the internet (43.48 ± 6.48) and healthy life behaviors (124.68 ± 18.62). It is seen that differences in education level have a significant effect on both scales ($p < 0.001$). It is noteworthy that high

Table 2. Participants' scale score averages

	Mean	SD	Median	Min	Max
Internet decision-making scale in pregnancy					
Self-efficacy perception	18.57	4.00	18.00	11.00	25.00
Self-control perception	19.42	3.73	19.00	10.00	25.00
Scale total score	38.00	7.25	38.00	21.00	50.00
Healthy lifestyle behaviors scale in pregnancy					
Pregnancy responsibility	18.29	2.37	20.00	11.00	20.00
Hygiene	17.46	2.87	18.00	8.00	20.00
Nutrition	32.60	6.52	32.00	18.00	45.00
Physical activity	10.58	2.31	10.00	3.00	15.00
Travel	19.38	3.40	19.00	8.00	25.00
Acceptance of pregnancy	17.14	3.08	18.00	4.00	20.00
Scale total score	115.47	15.26	113.00	71.00	145.00

SD: Standard deviation; Min: Minimum; Max: Maximum.

school graduates had lower scores on both scales, which may reflect contextual or socio-environmental influences.

Working pregnant women had higher scores for decision-making through the internet (39.71 ± 5.88) ($p < 0.05$), but lower scores for healthy lifestyle behaviors (110.76 ± 11.24) ($p < 0.001$). This could suggest that while working women may have better access to information, they might experience certain limitations in applying healthy behaviors in daily life.

Pregnant women living in rural areas, such as villages/towns, had the highest scores on both scales ($p < 0.001$), especially for healthy life behavior (124.65 ± 20.39). This could indicate that pregnant women in rural areas may adhere more closely to traditional pregnancy practices and routines, which might contribute to more careful behavior, although this interpretation should be approached cautiously.

Those who had been married for 5–9 years had the highest scores in making decisions over the internet ($p < 0.001$), while those married for 0–4 years performed better in healthy life behaviors ($p < 0.05$). These differences may be related to changing roles and responsibilities over the course of marriage.

Number of pregnancies has a significant effects on both internet decision-making and healthy life behaviors ($p < 0.05$). Those who had three or more pregnancies had higher scores than those who had their first pregnancy.

Pregnant women whose income was less than their expenses scored significantly lower in decision-making through the internet (31.96 ± 6.22 , $p < 0.001$). This finding

shows that economic difficulties have a negative impact on digital health decisions and that financial resources can directly affect access to information. However, no significant difference was observed in healthy living behaviors ($p > 0.05$).

It was determined that the total mean score of the internet decision-making scale during pregnancy of pregnant women with a nuclear family structure was statistically significantly higher than that of pregnant women with an extended family structure ($p < 0.05$).

It was determined that the total mean score of the internet decision-making in pregnancy scale of the pregnant women with two or more births was statistically significantly higher than the others ($p < 0.001$). It was determined that the total mean score of the healthy lifestyle behaviors in pregnancy scale of the pregnant women with two or more births was statistically significantly higher than the pregnant women with one birth ($p < 0.05$).

It was determined that the total mean score of the internet decision-making scale in pregnancy of pregnant women who had experienced a miscarriage/abortion was statistically significantly higher than those who had not ($p < 0.05$). However, no significant difference was observed in terms of healthy living behaviors ($p > 0.05$).

Pregnant women who received prenatal education ($p < 0.05$) and went to prenatal health check-ups ($p < 0.05$, $p < 0.001$) had significantly higher scores for both internet decision-making and healthy living behaviors. This finding highlights the potential importance of health education and suggests that such programs may positively influence health-related behaviors.

Pregnant women who used tobacco and alcohol showed significantly lower values in the healthy living behaviors score ($p < 0.05$). This finding is consistent with expectations, as unhealthy habits are likely to negatively affect healthy behavior levels.

Overall, the results suggest that demographic, obstetric, socioeconomic, and behavioral factors have significant effects on pregnant women's decision-making status and healthy life behaviors through the internet. These data may guide the development of individualized counseling and digital health literacy programs for pregnant women. However, the explanations provided should be interpreted as possible interpretations rather than direct statistical conclusions.

Discussion

This study was conducted to examine the decision-making levels of pregnant women through the internet and their healthy lifestyle behaviors, and the individual, sociodemographic, and obstetric factors affecting these. The findings revealed that pregnant women have a moderate level of self-efficacy and control perception in accessing and using digital information about health, and that they exhibit positive attitudes in terms of healthy lifestyle behaviors, especially in the areas of nutrition, hygiene, and pregnancy responsibility, but their physical activity levels are low. Importantly, this study is among the first to evaluate pregnant women's internet-based decision-making together with their healthy lifestyle behaviors in a single framework, offering an integrated perspective that previous research has largely overlooked.

In the study, it was observed that the scores for decision-making and healthy living behaviors via the internet increased with age. This shows that the individual becomes more selective and conscious in seeking health-related information as they get older. Similarly, Rezaee et al.^[5] reported that age and experience have a positive effect on decision-making processes; Jacobs et al.^[10] reported that older pregnant women are more cautious and careful in using online information.

A significant relationship was found between education status and internet usage level. The fact that pregnant women who graduated from secondary school had the highest scores in both decision-making through the internet and healthy living behaviors suggests that digital literacy is not limited to formal education level, and factors such as the individual's habit of accessing digital resources,

environmental support, and motivation to access information are also effective.^[6] Similarly, Özcan et al.^[1] also emphasized the importance of access to information as well as the level of education.

While working women have higher levels of decision-making through the internet, their healthy life behavior scores are lower, indicating that access to information is not always reflected in practice. This finding is consistent with the study conducted by Al-Dahshan et al.^[8] The authors stated that working women can access information more easily, but they have difficulty in changing their behavior due to time constraints.

The fact that women living in rural areas scored higher on both scales suggests that traditional family structure and more planned pregnancy experiences may be effective. Ünal et al.^[4] revealed that women in rural areas spent their pregnancy more carefully and gave more importance to health behaviors.

The fact that women who had experienced more than one pregnancy and birth had higher scores in internet use and healthy living behaviors shows that experience is an important determinant in these processes. This supports the view emphasized by Mecdi and Rathfisch^[3] that the experience gained during pregnancy is reflected in behaviors in later processes.

The fact that pregnant women whose income is less than their expenses have low scores for making decisions through the internet brings the concept of digital inequality to the agenda. Kocademir and Gerçek Öter state that income level is a determinant in basic points such as access to digital resources, device use, and data purchase.^[14] Similarly, Rezaee et al.^[5] showed that economic inadequacies have a direct negative impact on digital health decisions.

In fact, global studies after 2020 also point to the persistence of a "digital divide," especially in maternal health contexts, where disadvantaged groups face more barriers in accessing reliable digital health information and telehealth services.^[27,28] These findings suggest that addressing digital inequalities should be a core priority in designing maternal health interventions.

It was observed that women with a history of previous miscarriage/abortion searched for more information on the internet. This finding is parallel to the study of De Santis et al.,^[13] where researchers emphasized that women who had complications searched for information online more intensely.

The fact that women who received prenatal education and had a prenatal health check-up had high scores on both

decision-making and healthy living behaviors once again revealed the importance of structured education. Ceylan et al.^[7] and Tunca also drew attention to the positive effect of prenatal education on behavioral outcomes.^[11]

It is also known that pregnant women use the Internet extensively in their decision-making processes, but this use can sometimes lead to confusion and information confusion.^[12,15] Therefore, it is important that the process of accessing information is guided by health professionals, reliable sources are recommended, and individualized consultancy services are provided. In addition, from a practical perspective, midwives and nurses should not only direct pregnant women to reliable websites but also integrate digital health counseling into routine antenatal care. Evidence shows that combining online information with professional guidance improves maternal outcomes and reduces anxiety.^[29]

The fact that physical activity is found to be low compared to other behaviors indicates that more support and encouragement are needed in this area. Yılmaz and Karahan,^[26] and Mihiret et al.^[2] similarly revealed that physical activity is the weakest behavior category during pregnancy. This is consistent with international studies showing that despite widespread awareness campaigns, physical activity levels in pregnant women remain insufficient worldwide.^[30] Barriers include cultural norms, lack of safe spaces, and limited digital health content promoting exercise during pregnancy. Digital interventions that include tailored exercise modules and remote coaching have been reported to increase adherence, particularly in high-income countries, but their effectiveness in low- and middle-income contexts remains uncertain.^[31]

In conclusion, internet-based health information seeking stands out as an important factor affecting decision-making processes in pregnant women. However, in order for this process to yield positive results, information literacy needs to be developed, health professionals need to provide active consultancy, and digital content needs to be based on scientific foundations. When these findings are evaluated in a global context, they demonstrate that Turkey shares many similarities with international experiences in digital health use; however, structural inequalities and cultural differences shape the results in unique ways. Indeed, studies in European countries show that pregnant women use the internet primarily to obtain information before consulting with healthcare professionals, while studies in Asian countries reveal that internet use is more often associated with sharing

peer experiences and seeking social support.^[9,10] In our study, however, both trends are observed simultaneously, suggesting that both information seeking and the need for social support shape internet use.

Limitations of the Study

This study has several methodological limitations. Data were collected from two public hospitals in the Mediterranean Region; therefore, the findings cannot be generalized to all pregnant women in Turkey. Although valid and reliable scales were used, focusing solely on internet use may not fully represent today's diversified digital health behaviors. The cross-sectional design limits causal interpretation; thus, it cannot be determined whether internet use affects healthy lifestyle behaviors or the reverse. Social media, mobile health applications, and online platforms were not included, and internet use was examined in a general context.

Conclusion

Pregnant women showed moderate competence in accessing and using digital information, positive behaviors in nutrition, hygiene, and pregnancy responsibility, though low physical activity. Expanding prenatal education and strengthening digital health literacy, especially for low-income and less-educated women, are recommended. Access to online information appears to support healthy behaviors during pregnancy, but this process is shaped by factors such as age, experience, education, and social support, which healthcare providers should consider in planning and practice.

Ethics Committee Approval: The Burdur Mehmet Akif Ersoy University Non-Interventional Clinical Research Ethics Committee granted approval for this study (date: 03.12.2024, number: GO 2024/847).

Informed Consent: Written informed consent was obtained.

Conflict of Interest: None declared.

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

Use of AI for Writing Assistance: Not declared.

Authorship Contributions: Concept: EÇA, SUY, NB; Design: EÇA, SUY, NB; Supervision: EÇA, SUY, NB; Materials: EÇA, SUY, NB; Data Collection or Processing: EÇA, SUY, NB; Analysis or Interpretation: EÇA, SUY, NB; Literature Search: EÇA, SUY, NB; Writing: EÇA, SUY, NB; Critical Review: EÇA, SUY, NB.

Acknowledgments: We thank all pregnant women who agreed to participate in the study.

Peer-review: Double blind peer-reviewed.

References

- Özcan H, Polat T, Yılmaz MM, Öztürk MA, Aydoğan T. Determination of healthy lifestyle behaviors and affecting factors in pregnant women. *Online Türk Sağlık Bilimleri Dergisi* 2020;5(3):482-92. [Article in Turkish] [\[CrossRef\]](#)
- Mihiret GT, Meselu BT, Wondmu KS, Getaneh T, Moges NA. Health-promoting lifestyle behaviors and their associated factors among pregnant women in Debre Markos, northwest Ethiopia: a cross-sectional study. *Front Glob Womens Health* 2025;5:1468725. [\[CrossRef\]](#)
- Mecdi M, Rathfisch G. Evidence-based practices for pregnancy-related discomforts. *F N Hem Derg* 2013;21(2):38-129. [Article in Turkish]
- Ünal E, Ağralı C, Kaya Şenol D. Determination of the internet decision-making status of risky and non-risky pregnant women. *Journal of Midwifery and Health Sciences* 2024;7:403-12. [\[CrossRef\]](#)
- Rezaee R, Ravangard R, Amani F, Dehghani Tafti A, Shokrpour N, Bahrami MA. Healthy lifestyle during pregnancy: Uncovering the role of online health information seeking experience. *PLoS One* 2022;17(8):e0271989. [\[CrossRef\]](#)
- Bayrak E, Kanbur A. Investigation of the relationship between internet-based decision-making and health practices among pregnant women. *İnönü Üniversitesi Sağlık Hizmetleri Meslek Yüksekokulu Dergisi* 2022;10(1):255-69. [Article in Turkish] [\[CrossRef\]](#)
- Ceylan F, Ergün A, Sezer A. The effect of a planned education program for bank-employed pregnant women on their health behaviors. In: *Proceedings of the 16th National Public Health Congress*; 2013. [In Turkish]
- Al-Dahshan A, Kehyayan V, Al-Kubaisi N, Selim N. Utilization of the internet for physical activity and diet information and its influence on pregnant women's lifestyle habits in Qatar. *Front Public Health* 2023;11:1272109. [\[CrossRef\]](#)
- Gao LL, Larsson M, Luo SY. Internet use by Chinese women seeking pregnancy-related information. *Midwifery* 2013;29(7):730-5. [\[CrossRef\]](#)
- Jacobs EJA, van Steijn ME, van Pampus MG. Internet usage of women attempting pregnancy and pregnant women in the Netherlands. *Sex Reprod Healthc* 2019;21:9-14. [\[CrossRef\]](#)
- Tunca CN. Monitoring of some risky behaviors of pregnant women [Master's thesis]. Ankara: Hacettepe University, Institute of Health Sciences; 2014.
- Taştekin Ouyaba A, İnfal Kesim S. The effect of the Internet on decision-making during pregnancy: a systematic review. *Arch Womens Ment Health* 2021;24(2):205-15. [\[CrossRef\]](#)
- De Santis M, De Luca C, Quattrocchi T, Visconti D, Cesari E, Mappa I, et al. Use of the Internet by women seeking information about potentially teratogenic agents. *Eur J Obstet Gynecol Reprod Biol* 2010;151(2):154-7. [\[CrossRef\]](#)
- Kocademir L, Gercek Oter E. Determination of internet using of pregnant women and affecting factors: an analytical and cross-sectional study. *IDUHES* 2024;7(3):248-61. [\[CrossRef\]](#)
- Lagan BM, Sinclair M, Kernohan WG. Internet use in pregnancy informs women's decision making: a web-based survey. *Birth* 2010;37(2):106-15. [\[CrossRef\]](#)
- Lagan BM, Sinclair M, Kernohan WG. What is the impact of the Internet on decision-making in pregnancy? A global study. *Birth* 2011;38(4):336-45. [\[CrossRef\]](#)
- Kiarie KA, Mugambi MM. Social media and teenage pregnancy among students in Imenti North Sub-County, Meru County, Kenya. *IJSRM* 2016;4(9):4586-606.
- Peragallo Urrutia R, Berger AA, Ivins AA, Beckham AJ, Thorp JM Jr, Nicholson WK. Internet use and access among pregnant women via computer and mobile phone: implications for delivery of perinatal care. *JMIR Mhealth Uhealth* 2015;3(1):e25. [\[CrossRef\]](#)
- Tori L, Evrenol Öçal S. Gebelerin internet yoluyla karar alma durumları ve ilişkili faktörler. *UHSJN* 2024;6(3):229-36. [\[CrossRef\]](#)
- Çobaner AA, Köksoy S. Use of social media in the field of health: health messages on Twitter. In: *Proceedings of the Academic Informatics Conference*; 2014 Feb 5-7; Mersin, Turkey. [In Turkish].
- Mendi B. Sağlık iletişimde sosyal medyanın kullanımı: dünyadaki ve türkiye'deki uygulamalar. *Öneri Dergisi* 2015;11(44):275-90. [Article in Turkish] [\[CrossRef\]](#)
- Sütçü CS, Tosyalı H. Effects of social media use in health communication on individuals. *Maltepe University Journal of Faculty of Communication* 2016;3(2):3-22. [Article in Turkish]
- Kurt N, Yılmaz AN, Kök G. Relationship between internet-based decision-making, pregnancy stress and prenatal attachment in pregnant women. *Bingöl University Health Journal* 2024;5(3):686-97. [Article in Turkish] [\[CrossRef\]](#)
- Cohen J. *Statistical power analysis for the behavioral sciences*. 2nd ed. Hillsdale (NJ): Lawrence Erlbaum Associates; 1988.
- Koyun A, Erbektaş G. Development of the "internet-based decision-making in pregnancy scale". *International Refereed Journal of Gynaecological Diseases and Maternal Child Health* 2018;12:25-38. [Article in Turkish]
- Yılmaz E, Karahan N. Development and validity-reliability of the Healthy Lifestyle Behaviors in Pregnancy Scale. *Cukurova Med J* 2019;44(Suppl 1):498-512. [\[CrossRef\]](#)
- Lupton D, Maslen S. How women use digital technologies for health: qualitative interview and focus group study. *J Med Internet Res* 2019;21(1):e11481. [\[CrossRef\]](#)
- Ghimire S, Martinez S, Hartvigsen G, Gerdes M. Virtual prenatal care: A systematic review of pregnant women's and healthcare professionals' experiences, needs, and preferences for quality care. *Int J Med Inform* 2023;170:104964. [\[CrossRef\]](#)
- Chan KL, Chen M. Effects of Social Media and Mobile Health Apps on Pregnancy Care: Meta-Analysis. *JMIR Mhealth Uhealth* 2019;7(1):e11836. [\[CrossRef\]](#)
- Mottola MF, Davenport MH, Ruchat SM, Davies GA, Poitras VJ, Gray CE, et al. 2019 Canadian guideline for physical activity throughout pregnancy. *Br J Sports Med* 2018;52(21):1339-46. [\[CrossRef\]](#)
- Rhodes A, Smith AD, Chadwick P, Croker H, Llewellyn CH. Exclusively digital health interventions targeting diet, physical activity, and weight gain in pregnant women: systematic review and meta-analysis. *JMIR Mhealth Uhealth* 2020;8(7):e18255. [\[CrossRef\]](#)

Appendix 1. Power analysis report

An a priori power analysis was conducted using the G*Power 3.1.9.7 program to determine the minimum sample size required for the study. The analysis was based on the following parameters:

Input parameters

Test family	F tests
Statistical test	ANOVA: Fixed effects, omnibus, one-way
Effect size f	0.20
α err prob	0.05
Power (1- β err prob)	0.95
Number of groups	4

According to the power analysis, a minimum of 312 participants was required to achieve sufficient statistical power. However, the study was conducted with 367 volunteer pregnant women, which exceeds the required sample size, thus increasing the reliability of the findings.

Output parameters

Non-centrality parameter λ	59.2800
Critical F	2.6809
Numerator df	3
Denominator df	308
Total sample size	312
Actual power	0.9502

Appendix 2. Internet decision-making scale in pregnancy score averages and influencing factors according to participants' individual characteristics

Individual characteristics	Internet decision-making scale in pregnancy	
	Mean (SD)	Test statistics/p
Age*		
19–25 ^a	36.54 (5.87)	F: 6.285; df: 2; η^2 : 0.033
26–32 ^b	38.29 (7.14)	p=0.002
33–39 ^c	39.98 (8.92)	Significant difference: c>a
Education status*		
Primary school ^a	40.41 (7.53)	F: 19.351; df: 3; η^2 : 0.138
Middle school ^b	43.48 (6.48)	p<0.001
High school ^c	36.02 (6.54)	Significant difference: a,b>c; b>d
University and above ^d	37.44 (7.15)	
Working status**		
Yes	39.71 (5.88)	t: 2.267; df: 136.274; Cohen's d: 0.031
No	37.57 (7.49)	p=0.002
Place of residence*		
Village-town ^a	43.03 (7.42)	F: 12.244; df: 2; η^2 : 0.063
District ^b	38.59 (6.93)	p<0.001
Province ^c	36.37 (7.07)	Significant difference: a>b>c
Years of marriage*		
0–4 years ^a	37.57 (7.03)	F: 8.140; df: 2; η^2 : 0.043
5–9 years ^b	39.62 (7.35)	p<0.001
10 and above ^c	34.73 (6.68)	Significant difference: b>a,c
Family income status*		
Income is less than expenses ^a	31.96 (6.22)	F: 26.097; df: 2; η^2 : 0.125
Income is equal to expenses ^b	39.03 (6.80)	p<0.001
Income is more than expenses ^c	39.40 (7.45)	Significant difference: b,c>a
Family type**		
Nuclear family	38.22 (7.39)	t: 1.923; df: 43.286; Cohen's d: 0.041
Extended family	35.61 (4.97)	p=0.011
Number of pregnancies*		
First ^a	36.52 (6.48)	F: 7.737; df: 2; η^2 : 0.041
Second ^b	37.67 (6.34)	p=0.001
Three and above ^c	40.19 (8.65)	Significant difference: c>a,b
Number of births*		
0 ^a	37.42 (6.92)	F: 9.721; df: 2; η^2 : 0.051
1 ^b	36.67 (5.82)	p<0.001
2 and above ^c	40.70 (8.74)	Significant difference: c>a,b
Miscarriage/abortion status**		
No	37.53 (7.04)	t: -2.958; df: 68.316; Cohen's d: 0.042
Yes	40.66 (7.90)	p=0.008
Is your pregnancy planned?**		
Yes	38.32 (7.49)	t: 1.516; df: 197.307; Cohen's d: 0.017
No	37.11 (6.48)	p=0.131

Appendix 2 (cont.). Internet decision-making scale in pregnancy score averages and influencing factors according to participants' individual characteristics

Individual characteristics	Internet decision-making scale in pregnancy	
	Mean (SD)	Test statistics/p
Pre-pregnancy health check status**		
Yes	38.64 (7.15)	t: 2.527; df: 219.997; Cohen's d: 0.028 p=0.013
No	36.60 (7.29)	
Prenatal education status during current pregnancy**		
Yes	38.75 (6.93)	t: 2.944; df: 210.859; Cohen's d: 0.032 p=0.005
No	36.39 (7.65)	
Tobacco and tobacco products usage**		
Yes	37.80 (6.11)	t: -0.194; df: 67.570; Cohen's d: 0.003 p=0.824
No	38.02 (7.41)	
Alcohol use status		
Yes	38.27 (4.66)	t: -0.166; df: 21.636; Cohen's d: 0.001 p=0.805
No	37.98 (7.36)	

*: One-way analysis of variance; Post hoc test: Bonferroni; **: Independent samples test. Superscript letters (a, b, c, and d) indicate the groups used for post hoc pairwise comparisons. Bold p values indicate statistical significance ($p < 0.05$). SD: Standard deviation.

Appendix 3. Healthy lifestyle behaviors scale in pregnancy score averages and influencing factors according to participants' individual characteristics

Individual characteristics	Healthy lifestyle behaviors scale in pregnancy	
	Mean (SD)	Test statistics/p
Age*		F: 5.562; df: 2; η^2 : 0.030
19–25 ^a	112.81 (14.61)	p=0.004
26–32 ^b	115.61 (12.18)	Significant difference: c>a
33–39 ^c	119.75 (19.67)	
Education status*		F: 11.088; df: 3; η^2 : 0.064
Primary school ^a	115.88 (21.80)	p<0.001
Middle school ^b	124.68 (18.62)	Significant difference: b>a,c,d
High school ^c	111.93 (11.78)	
University and above ^d	116.13 (13.65)	
Working status**		t: -2.973; df: 152,177; Cohen's d: 0.043
Yes	110.76 (11.24)	p<0.001
No	116.63 (15.91)	
Place of residence*		F: 21.869; df: 2; η^2 : 0.107
Village-town ^a	124.65 (20.39)	p<0.001
District ^b	118.74 (15.87)	Significant difference: a,b>c
Province ^c	109.94 (11.04)	
Years of marriage*		F: 7.169; df: 2; η^2 : 0.038
0–4 years ^a	117.19 (14.34)	p=0.001
5–9 years ^b	115.45 (16.57)	Significant difference: a,b>c
10 and above ^c	107.41 (12.55)	
Family income status*		F: 1.216; df: 2; η^2 : 0.007
Income is less than expenses ^a	115.55 (14.37)	p=0.298
Income is equal to expenses ^b	116.01 (16.16)	
Income is more than expenses ^c	112.17 (9.68)	
Family type**		t: 0.413; df: 32.868; Cohen's d: 0.001
Nuclear family	115.57 (14.70)	p=0.757
Extended family	114.38 (20.64)	
Number of pregnancies*		F: 4.359; df: 2; η^2 : 0.023
First ^a	115.50 (12.89)	p=0.013
Second ^b	112.97 (13.78)	Significant difference: c>b
Three and above ^c	118.76 (18.85)	
Number of births*		F: 5.149; df: 2; η^2 : 0.028
0 ^a	114.78 (12.74)	p=0.006
1 ^b	113.24 (13.85)	Significant difference: c>b
2 and above ^c	119.60 (19.34)	
Miscarriage/abortion status**		t: 1.454; df: 71.334; Cohen's d: 0.021
No	115.95 (15.17)	p=0.159
Yes	112.68 (15.62)	
Is your pregnancy planned?*		t: 0.867; df: 149.749; Cohen's d: 0.009
Yes	115.88 (14.49)	p=0.425
No	114.32 (17.32)	

Appendix 3 (cont.). Healthy lifestyle behaviors scale in pregnancy score averages and influencing factors according to participants' individual characteristics

Individual characteristics	Healthy lifestyle behaviors scale in pregnancy	
	Mean (SD)	Test statistics/p
Pre-pregnancy health check status**		
Yes	117.56 (15.64)	t: 3.950; df: 258.779; Cohen's d: 0.060 p<0.001
No	110.93 (13.37)	
Prenatal education status during current pregnancy**		
Yes	116.99 (15.24)	t: 2.805; df: 234.890; Cohen's d: 0.031 p=0.005
No	112.25 (14.87)	
Tobacco and tobacco products usage**		
Yes	108.70 (15.31)	t: -3.299; df: 59.754; Cohen's d: 0.051 p=0.002
No	116.46 (15.02)	
Alcohol use status		
Yes	108.05 (10.13)	t: -2.123; df: 21.277; Cohen's d: 0.060 p=0.006
No	115.85 (15.39)	

*: One-way analysis of variance; post hoc test: Bonferroni; **: Independent samples test. Superscript letters (a, b, c, and d) indicate the groups used for post hoc pairwise comparisons. Bold p values indicate statistical significance ($p<0.05$). SD: Standard deviation.