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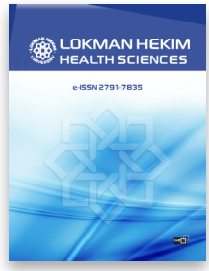

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ORIGINAL ARTICLE

An Assessment of Pregnant Women's Health Literacy and Internet-Based Decision Making

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Abstract

Introduction: This study aimed to examine the relationship between pregnant women's health literacy and their internet-based decision-making.

Methods: This descriptive correlational study was conducted between July and December 2024 in the antenatal outpatient clinic of a private hospital. The pregnant women who met the inclusion criteria were selected for the study. The study was conducted on 308 pregnant women. Data were collected through face-to-face interviews using the Descriptive Information Form, the European Health Literacy Survey Questionnaire-Short Form (HLS-EU-Q16), and the Internet-Based Decision-Making Scale in Pregnancy (IDMSP). Data were analyzed using SPSS 22.0 software, employing descriptive statistics and correlation analyses. A p-value of <0.05 was considered statistically significant.

Results: The study was completed with 308 pregnant women. The mean age of the participants was 28.94±3.88 years (min=21; max=45), and the mean gestational week was 35.03±2.53 (min=22; max=40). It was found that 52.9% of the pregnant women used the internet for 1–3 hours per day, and 21.1% believed and took into account the information they found online. The average score on the HLS-EU-Q16 was 36.72±6.61 (min=15.48; max=50.00), and the average score on the IDMSP was 32.38±7.05 (min=10.00; max=50.00). A positive but low-level and statistically non-significant correlation was found between total internet-based decision-making scores and health literacy scores (r=0.090, p=0.115).

Discussion and Conclusion: Health literacy levels varied according to certain sociodemographic characteristics of pregnant women, and internet use may influence decision-making processes. Improving access to accurate and reliable information during pregnancy can contribute to enhancing health literacy.

Keywords: Decision-making; Health literacy; Internet; Nursing; Pregnancy

The World Health Organization defines health literacy as the cognitive and social competencies that influence individuals' motivation and capacity to seek, comprehend, and utilize information to foster and sustain good health.[1] Health literacy is essential for individuals to effectively manage their health and make educated decisions.[2] Pregnancy crucial phase in a woman's life-demands comprehensive knowledge about maternal and fetal health and heightens the necessity to consult trustworthy sources.[3] Research demonstrates that health

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literacy during pregnancy affects both pregnancy-specific outcomes and a woman's general health perspective.[3,4] Pazaröz yurt and Özkan[5] discovered that declines in the health literacy components of obtaining, comprehending, and evaluating information correlated with diminished self-care competence throughout pregnancy. Pregnant women who obtain sufficient professional care and engage in discussions about online information with health experts demonstrate elevated health literacy scores.[3] Conversely, inadequate health literacy negatively impacts healthy lifestyle behaviors during pregnancy, including personal responsibility, hygiene, nutrition, physical exercise, and travel habits.[3,5] The swift advancement of digital technology has rendered the internet a prevalent resource for fulfilling information requirements throughout pregnancy.[6] Research indicates that between 45.4% and 97% of pregnant women pursue information online.[5,7,8] The topics most frequently searched include pregnancy and birth processes, fetal development, common pregnancy complaints, healthy-lifestyle behaviours (medication use, nutrition, exercise), postpartum maternal recovery and care, breastfeeding, and newborn care.[9] However, unverified electronic sources lacking scientific rigour may lead pregnant women to acquire misinformation and make inappropriate health decisions.[10]

As internet-based decision-making escalates, the impact of sound health practices on the pregnancy experience also intensifies.[8,11] As internet-based decision making increases, the contribution of good health practices to the pregnancy experience also rises.[11] Snyder and colleagues[12] found that obtaining online information positively affected nutrition motivation among pregnant women, while Li et al.[13] reported that seeking information on reliable platforms enhanced literacy regarding medical drug use. Internet-based decision making and health literacy are influenced by numerous factors, including individual characteristics and obstetric variables.[3] For example, Wallwiener et al.[7] showed that a one-point change in perceived health among pregnant women increased internet use by 2.5-fold. Other research indicates that younger, primiparous, and planned pregnancies are associated with higher internet-based decision-making scores.[14] Frequent pregnancy complaints that disrupt daily activities likewise raise internet-based decision-making.[15] As internet-based decision-making levels rise, pregnant women's intentions to improve both their own health and that of their babies also increase.[14] Conversely, low health literacy elevates stress during internet-based decision making, and heightened stress significantly reduces prenatal attachment.[16]

The aim of the study was to determine the relationship between health literacy levels and internet-based decision-making in pregnant women.

Materials and Methods

Study Place and Design

This study employed a descriptive correlational design and was conducted between 30.07.2024-30.12.2024 at the antenatal outpatient clinic of a private hospital in Ankara. This study was done to ascertain the correlation between health literacy levels and internet-based decision-making among pregnant women.

Research Questions were as follows:

1. What are pregnant women's levels of health literacy?
2. What are pregnant women's internet-based decision-making levels?
3. Is there a relationship between health literacy levels and internet-based decision making?

Population and Sample

The study population consisted of pregnant women who applied to the antenatal outpatient clinic of the hospital. The study was conducted on 308 pregnant women.

Inclusion Criteria

Participants included women with a healthy pregnancy who were able to use digital communication tools and could speak and understand Turkish. Women with visual or hearing impairments were excluded from the study.

Data Collection Tools

Data were collected using the Descriptive Information Form, the European Health Literacy Survey Questionnaire-Short Form (HLS-EU-Q16), and the Internet-Based Decision-Making Scale in Pregnancy (IDMSP).

Descriptive Information Form

This form consisted of 24 items that gathered sociodemographic data (e.g., age, education level, income, place of residence, family structure), obstetric characteristics, and internet usage behaviors.

European Health Literacy Survey Questionnaire - Short Form (HLS-EU-Q16)

This 16-item, 5-point Likert-type scale was originally developed by the European Health Literacy Survey Consortium in 2012[17] and its Turkish validity and reliability

Table 1. Average scores for health literacy and internet-based decision-making during pregnancy

	n	Mean	SD	Min	Max	Kurtosis	Skewness
Health literacy	308	36.720	6.612	15.480	50.000	-0.166	0.370
Internet decision making during pregnancy total	308	32.386	7.057	10.000	50.000	-0.201	-0.575
Self-efficacy	308	15.688	3.827	5.000	25.000	-0.661	-0.414
Self-control	308	16.698	3.836	5.000	25.000	-0.273	-0.762

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

study was conducted by Öztürk Emiral et al.[18] in 2018. Each item is scored from 0 to 4. A standardized index score is calculated using the formula: Index Score = (Mean – 1) × (50/3). The index score ranges from 0 to 50; scores ≥33 indicate adequate health literacy. The scale demonstrated high internal consistency with a Cronbach's alpha of 0.89 in the original study. In the present study, the Cronbach's alpha was 0.86.

Internet-Based Decision-Making Scale in Pregnancy (IDMSP)

Developed by Koyun and Erbektaş (2018),[19] this scale measures the impact of internet use on decision-making during pregnancy. It consists of 10 items and two subdimensions: Perceived Self-Efficacy (items 1–5) and Perceived Self-Control (items 6–10). It is a 5-point Likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Total scores range from 10 to 50, with higher scores indicating a greater impact of internet use on decision-making. No cut-off score is specified. In the original study, the Cronbach's alpha was reported as 0.85.[19] In this study, the overall Cronbach's alpha was 0.88; the subscales had Cronbach's alphas of 0.85 (self-efficacy) and 0.84 (self-control).

Data Collection

Data were collected through face-to-face interviews conducted by the researchers. Participants were informed about the study and gave informed consent before completing the questionnaires. Completing the survey took approximately 5-10 minutes.

Statistical Analysis

The data were analyzed using IBM SPSS Statistics for Windows, Version 22.0 (SPSS INC., Chicago, IL, USA). Frequencies and percentages were used to describe participants' characteristics, while means and standard deviations were used to analyze the scale scores. Skewness and kurtosis values were assessed to determine the normality of the data distribution. Parametric statistical methods were applied. Pearson correlation analysis was used to examine relationships between scale scores. Independent samples t-tests, one-way ANOVA, and post hoc tests (Tukey, LSD) were used to evaluate differences in scale scores based on demographic variables.

Ethical Approval

Ethical approval was obtained from the Scientific Research Ethics Committee of Lokman Hekim University (Approval No: 2024/165). Participants were informed about the study and provided written consent before completing the forms. The study adhered to the principles of the Declaration of Helsinki and publication ethics.

Results

The study was completed with 308 pregnant women who met the inclusion criteria. The present mean scores obtained from the health literacy and internet-based decision-making scales among pregnant women are summarized in Table 1. The participants' mean score on the European Health Literacy Survey Questionnaire - Short Form (HLS-EU-Q16) was 36.72±6.61, ranging from a minimum of 15.48 to a maximum of 50.00. The overall mean score of the Internet-Based Decision-Making Scale in Pregnancy (IDMSP) was 32.38±7.05. Regarding its subdimensions, the mean score for perceived self-efficacy was 15.68±3.82, and for perceived self-control, it was 16.69±3.83 (Table 1).

The results of the Pearson correlation analysis performed to determine the relationship between HLS-EU-Q16 and IDMSP scores are presented in Table 2. No significant correlations were observed between health literacy (HLS-EU-Q16) scores and total or subscale scores of the Internet-Based Decision-Making Scale in Pregnancy (IDMSP).

Differences in HLS-EU-Q16 and IDMSP scores according to descriptive and obstetric variables are presented in Appendix 1. No statistically significant differences were found in HLS-EU-Q16 scores in relation to age, education, occupation, place of residence, spouse's education and occupation, or social insurance status ($p>0.05$). However, pregnant women whose monthly income exceeded their expenses had significantly higher HLS-EU-Q16 scores

Table 2. Correlation analysis between health literacy and internet decision-making scores during pregnancy

	Health literacy
Internet decision making during pregnancy total	
r	0.090
p	0.115
Self-efficacy	
r	0.108
p	0.058
Self-control	
r	0.058
p	0.311

Pearson correlation analysis.

compared to those with lower income levels (p =0.009). Among obstetric variables, only the history of abortion resulted in significant differences in health literacy scores-those with a history of abortion had lower scores (p=0.004). Additionally, when evaluated by information source, women who received information from healthcare professionals had significantly higher health literacy scores compared to those who obtained information from sources such as the internet (p=0.045) (Appendix 1).

Regarding IDMSP scores, significant differences were found between age groups: women aged 25 or younger had higher total, self-efficacy, and self-control scores (p=0.001; p<0.05). Based on education level, university graduates had significantly higher total and self-efficacy scores than high school graduates (p=0.017; p=0.009), though no significant difference was found in self-control scores (p=0.073). No significant differences in IDMSP scores were observed in relation to occupation, place of residence, spouse-related factors, social insurance, or income level (p>0.05). Primigravida women had significantly higher total IDMSP scores compared to multigravida women (p=0.002). All IDMSP scores were significantly lower among women with a history of abortion (p<0.05), and women with a history of miscarriage had significantly lower self-control scores (p=0.044). Pregnant women who trusted information found on the internet had significantly higher IDMSP scores, and this difference was statistically significant (p=0.000) (Appendix 1).

Discussion

The increasing prevalence of digital health resources in today's evolving world has significantly impacted individuals' access to information and decision-making processes, particularly during sensitive periods such as pregnancy.[20,21] In this context, the findings of our study regarding the relationship between health literacy levels and internet-based decision making among pregnant women were interpreted and compared with the existing literature.

The study findings indicate that the health literacy levels of pregnant women varied from moderate to high, implying that they had essential skills in obtaining, comprehending, and evaluating health-related information. The literature highlights that elevated health literacy enhances access to information and the effective use of healthcare services during pregnancy.[4,22] Taheri et al.[23] reported that 48.9% of pregnant women had inadequate or limited health literacy, which could hinder access to services. Similarly, Nawabi et al.[22] showed that health literacy is associated with healthy behaviors, and its deficiency poses risks. Delanoë et al.[24] stated that health literacy plays a significant role in decision-making during prenatal testing and childbirth, and individuals with low literacy were less likely to use decision-support tools.

In our study, the HLS-EU-Q16 scores ranged from 15.48 to 50.00, indicating notable individual differences among pregnant women. Güler et al.[25] emphasized the relationship between antenatal care knowledge and health literacy. Overall, the findings are consistent with the literature and underscore the need for educational and guidance programs to enhance access to accurate and reliable information during pregnancy. Elbarazi et al.[21] emphasized that individualized information and counseling provided by healthcare professionals are effective in improving health literacy.

The HLS-EU-Q16 scores in our study suggest that pregnant women tend to make decisions based on information acquired via the internet at a moderate level. This indicates that while women are willing to use digital resources, they integrate this information into their decision-making processes to a limited extent. A similar finding by Lagan et al.[26] reported that pregnant women frequently use the internet as a source of information, though there are individual differences in how this information is used in decision-making. Damayanti et al.[27] highlighted that internet use increases decision-making tendencies, especially during emergencies and uncertain situations, though this process is closely linked to trust and the perceived accuracy of the information.

The findings related to the self-efficacy subdimension of the IDMSP show that pregnant women have a moderate level of confidence in using and applying health information obtained online. The self-control subdimension findings similarly indicate a moderate ability to critically evaluate

and regulate online health information. In line with studies emphasizing the need to question the accuracy of information gathered from social media and forums, McCarthy et al.[20] noted the importance of professionally moderated social media groups in providing reliable information to pregnant women. Our study findings also indicate that internet use alone is not a decisive factor in decision-making, although digital information use is on the rise. This underlines the importance of supporting digital literacy and critical evaluation skills.

The correlation analysis revealed a low-level, positive but statistically non-significant relationship between HLS-EU-Q16 and IDMSP scores. The above-average scores on both scales imply that pregnant women have good health literacy and internet-based decision-making. The lack of a substantial link between the scales implies that these two seemingly related ideas may be influenced by separate variables independently. High health literacy does not always directly reflect digital information in decision-making, especially since reliability and personal experiences can be decisive.[23,28] Our study found that young people and those with higher education levels are more likely to make decisions online. However, we found that these same factors did not affect health literacy, and those who received information from a healthcare professional had higher literacy levels. Trust in the information, previous health experiences, advice from health professionals, and individual decision-making styles may also affect how much pregnant women use internet-based information in clinical practice. Thus, participants' dispositions to critically analyze internet information and individual variability in integrating digital information into health decisions may explain the limited association between the two scores. This suggests that while health literacy may influence internet-based decision making, it is not a sole determinant. Similarly, Dutra and Bértolo[28] reported that women with higher health literacy tended to use the internet more frequently and discussed the information with healthcare professionals, whereas those with lower literacy struggled with critical evaluation. A near-significant positive correlation between the self-efficacy subdimension of the IDMSP and HLS-EU-Q16 scores suggests that pregnant women with higher health literacy are more confident in using online health information. Damayanti et al.[27] also indicated that while internet use is common for acquiring information, its effect on decision-making varies individually. On the other hand, no significant relationship was found between self-control scores and health literacy, which may imply that even women with high literacy levels may struggle with critically evaluating information. Taheri et al.[23] emphasized that while health literacy influences access to care during pregnancy, the reliability of acquired information must be questioned. Overall, health literacy contributes only partially to digital decision-making processes. Therefore, it is essential to support individuals with low health literacy and guide them toward reliable information through professional counseling.

Regarding sociodemographic variables, younger, more educated pregnant women experiencing their first pregnancy exhibited significantly elevated internet-based decision-making scores, whereas individuals with higher income levels and those receiving information from healthcare providers demonstrated significantly enhanced health literacy scores. Comparable findings in the literature suggest that younger and primigravid women have a greater propensity to utilize digital resources, while wealth enhances access to both healthcare and internet-based information.[14,29] Moreover, receiving information from healthcare professionals has been shown to improve health literacy, as highlighted by Pazarözyurt and Özkan[5] and Baltacı et al.[3] These findings underscore the importance of providing pregnant women with access to reliable information sources and professional counseling.

In our study also found that pregnant women with a history of abortion had significantly lower health literacy and internet-based decision-making scores. The literature suggests that traumatic obstetric experiences may negatively impact individuals' health information-seeking behaviors and trust in information. Emotionally challenging experiences, such as abortion, may reduce motivation to seek information and complicate decision-making processes. Therefore, psychosocial support and professional counseling services are essential in improving the health literacy and digital information utilization skills of this group.[30]

Limitations

This study was conducted at a private hospital in Ankara, and the results apply to pregnant women with similar socioeconomic and cultural backgrounds; however, their generalizability may be limited for diverse geographical areas and sample populations. The participants, being Turkish-speaking women with healthy pregnancies and proficiency in digital tools, enhance the representativeness of the findings for groups possessing these attributes. The gathering of data by self-reporting is valuable for directly reflecting participants' experiences and opinions; nevertheless, the potential for response bias must be considered.

Conclusion

This study demonstrated a favorable yet non-significant correlation between the health literacy levels of pregnant women and their tendency for internet-based decision-making. A substantial link was detected in the self-efficacy subdimension; however, the correlation with self-control was markedly low. Younger women, those with elevated educational qualifications, and primigravida women exhibited markedly higher results in internet-based decision-making. Moreover, women with elevated income levels and those who received information from healthcare providers exhibited markedly greater health literacy levels.

Given these findings, it is advisable to incorporate digital health literacy into antenatal care protocols to facilitate the appropriate utilization of digital information throughout pregnancy. Healthcare providers must direct pregnant women to trustworthy digital resources during counseling, with specific emphasis on persons with limited health literacy, especially in enhancing their critical assessment abilities about online health information.

Ethics Committee Approval: The Lokman Hekim University Scientific Researches Ethics Committee granted approval for this study (date: 28.06.2024, number: 2024/165).

Informed Consent: Written informed consent was obtained from participants.

Conflict of Interest: None declared.

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Appendix 1. Differences in HLS-EU-Q16 and IDMSP scores according to descriptive characteristics

Descriptive characteristics	n	%	HLS-EU-Q16		IDMSP total		IDMSP self-efficacy		IDMSP self-control	
			Mean±SD	Analysis	Mean±SD	Analysis	Mean±SD	Analysis	Mean±SD	Analysis
Age										
25 and below	54	17.5	37.922±6.335	F=2.599	34.907±6.238	F=6.876	17.130±3.163	F=6.777	17.778±3.473	F=4.987
26–30	167	54.2	36.982±6.849	p=0.076	32.557±6.992	**p=0.001**	15.719±3.848	**p=0.001**	16.838±3.776	**p=0.007**
31 and above	87	28.2	35.472±6.179		30.494±7.193	PostHoc=1>2, 1>3, 2>3 (p<0.05)	14.736±3.913	PostHoc=1>2, 1>3, 2>3 (p<0.05)	15.759±3.988	PostHoc= 1>3, 2>3 (p<0.05)
Educational status										
High school	92	29.9	35.795±6.144	t=-1.607	30.913±7.274	t=-2.410	14.815±3.843	t=-2.638	16.098±4.028	t=-1.799
University Postgraduate	216	70.1	37.114±6.777	p=0.096	33.014±6.883	**p=0.017**	16.060±3.768	**p=0.009**	16.954±3.731	p=0.073
Occupation										
Housewife	150	48.7	36.981±6.535		32.313±6.741		15.520±3.630		16.793±3.717	
Worker	39	12.7	36.389±6.685	F=0.188	32.564±7.394	F=0.452	16.051±4.032	F=0.398	16.513±3.783	F=0.738
Officer	72	23.4	36.341±7.086	p=0.904	31.819±7.210	p=0.716	15.583±3.946	p=0.755	16.236±4.019	p=0.530
Freelance	47	15.3	36.744±6.204		33.340±7.634		16.085±4.148		17.255±3.997	
Place of residence										
Province	256	83.1	36.723±6.817	t=0.016	32.305±7.066	t=-0.450	15.617±3.795	t=-0.723	16.688±3.875	t=-0.107
District	52	16.9	36.707±5.554	p=0.987	32.789±7.064	p=0.653	16.039±4.000	p=0.470	16.750±3.672	p=0.915
Spouse educational status										
High school	110	35.7	37.077±6.781	t=0.706	32.836±7.136	t=0.834	15.891±3.767	t=0.692	16.946±3.937	t=0.843
University postgraduate	198	64.3	36.522±6.526	p=0.481	32.136±7.018	p=0.405	15.576±3.865	p=0.490	16.561±3.781	p=0.400
Spouse occupation										
Worker	96	31.2	36.485±6.638	F=0.097	33.031±7.149	F=0.603	15.990±3.763	F=0.453	17.042±3.844	F=0.574
Officer	107	34.7	36.887±6.916	p=0.908	32.196±7.030	p=0.548	15.608±3.863	p=0.636	16.589±3.863	p=0.564
Freelance	105	34.1	36.765±6.323		31.991±7.025		15.495±3.868		16.495±3.816	
Social security										
Yes	290	94.2	36.817±6.694	t=1.033	32.455±7.044	t=0.686	15.703±3.840	t=0.278	16.752±3.810	t=0.986
No	18	5.8	35.159±5.016	p=0.303	31.278±7.371	p=0.493	15.444±3.698	p=0.781	15.833±4.246	p=0.325
Monthly income										
Less than expenses	51	16.6	34.583±7.369	F=4.766	31.628±6.591	F=0.637	15.059±3.657	F=1.292	16.569±3.590	F=0.126
Income equals expenses	178	57.8	36.675±6.233	**p=0.009**	32.758±7.063	p=0.530	15.966±3.791	p=0.276	16.792±3.918	p=0.882
Income more than expenses	79	25.6	38.202±6.626	PostHoc= 2>1, 3>1 (p<0.05)	32.038±7.358		15.468±3.996		16.570±3.842	

Appendix 1 (cont). Differences in HLS-EU-Q16 and IDMSP scores according to descriptive characteristics

Descriptive characteristics	n	%	HLS-EU-Q16		IDMSP total		IDMSP self-efficacy		IDMSP self-control	
			Mean±SD	Analysis	Mean±SD	Analysis	Mean±SD	Analysis	Mean±SD	Analysis
Number of pregnancies										
1	211	68.5	36.793±6.602	F=0.041	33.322±6.870	F=6.259	16.100±3.752	F=4.081	17.223±3.725	F=6.641
2	64	20.8	36.547±6.886	p=0.960	30.641±6.336	**p=0.002**	14.938±3.581	**p=0.018**	15.703±3.575	**p=0.002**
3 and above	33	10.7	36.588±6.324		29.788±8.377	PostHoc=1>2, 1>3 (p<0.05)	14.515±4.381	PostHoc=1>2, 1>3 (p<0.05)	15.273±4.361	PostHoc= 1>2, 1>3 (p<0.05)
Number of Births										
0	195	63.3	36.849±6.771	F=0.284	33.169±6.809	F=5.433	16.041±3.718	F=4.144	17.128±3.683	F=5.082
1	82	26.6	36.730±6.319	p=0.753	31.854±6.704	**p=0.005**	15.500±3.699	**p=0.017**	16.354±3.723	**p=0.007**
2 and above	31	10.1	35.883±6.503		28.871±8.421	PostHoc=1>3, 2>3 (p<0.05)	13.968±4.423	PostHoc=1>3 (p<0.05)	14.903±4.534	PostHoc= 1>3 (p<0.05)
Miscarriage										
No	276	89.6	36.935±6.689	t=1.683	32.612±6.894	t=1.655	15.765±3.774	t=1.026	16.848±3.725	t=2.023
Yes	32	10.4	34.864±5.666	p=0.062	30.438±8.195	p=0.099	15.031±4.261	p=0.306	15.406±4.550	**p=0.044**
Abortion										
No	271	88.0	37.095±6.648	t=2.723	32.823±6.691	t=2.975	15.897±3.664	t=2.610	16.926±3.655	t=2.858
Yes	37	12.0	33.972±5.707	**p=0.004**	29.189±8.768	**p=0.020**	14.162±4.634	**p=0.034**	15.027±4.693	**p=0.023**
Previous pregnancy risk										
Yes	26	8.4	38.013±6.802	t=1.042	31.500±7.737	t=-0.669	15.577±3.962	t=-0.155	15.923±4.289	t=-1.077
No	282	91.6	36.601±6.594	p=0.298	32.468±7.000	p=0.504	15.699±3.821	p=0.877	16.770±3.792	p=0.282
Chronic disease										
Yes	38	12.3	37.017±6.274	t=0.295	31.500±6.809	t=-0.827	15.079±3.694	t=-1.049	16.421±3.782	t=-0.475
No	270	87.7	36.678±6.669	p=0.768	32.511±7.094	p=0.409	15.774±3.844	p=0.295	16.737±3.849	p=0.635
Smoking status										
Yes	38	12.3	37.006±6.325	t=-0.284	33.368±6.984	t=-0.916	15.947±4.113	t=-0.445	17.421±3.666	t=-1.242
No	270	87.7	36.680±6.662	p=0.777	32.248±7.069	p=0.360	15.652±3.792	p=0.657	16.596±3.855	p=0.215
Current pregnancy risk										
Yes	28	9.1	37.149±7.650	t=0.359	33.500±7.219	t=0.876	16.429±3.686	t=1.074	17.071±4.009	t=0.540
No	280	90.9	36.677±6.513	p=0.720	32.275±7.044	p=0.382	15.614±3.839	p=0.284	16.661±3.824	p=0.590
Baby sex										
Male	164	53.2	36.724±6.529	t=0.011	32.652±6.717	t=0.706	15.988±3.557	t=1.468	16.665±3.716	t=-0.163
Female	144	46.8	36.716±6.729	p=0.991	32.083±7.436	p=0.481	15.347±4.099	p=0.147	16.736±3.981	p=0.871
Pregnancy planning										
Yes	236	76.6	36.404±6.740	t=-1.523	32.292±6.887	t=-0.423	15.564±3.686	t=-1.036	16.729±3.801	t=0.254
No	72	23.4	37.757±6.103	p=0.129	32.694±7.628	p=0.673	16.097±4.260	p=0.301	16.597±3.974	p=0.799

Appendix 1 (cont). Differences in HLS-EU-Q16 and IDMSP scores according to descriptive characteristics

Descriptive characteristics	n	%	HLS-EU-Q16		IDMSP total		IDMSP self-efficacy		IDMSP self-control	
			Mean±SD	Analysis	Mean±SD	Analysis	Mean±SD	Analysis	Mean±SD	Analysis
Pregnancy information source										
Health personnel	220	71.4	37.307±6.752	F=3.135	32.109±7.438	F=0.896	15.591±3.943	F=0.500	16.518±4.083	F=1.107
Surroundings	24	7.8	35.643±7.059	**p=0.045**	32.125±6.265	p=0.409	15.458±3.659	p=0.607	16.667±3.435	p=0.332
Internet	64	20.8	35.106±5.663	PostHoc= 1>3 (p<0.05)	33.438±5.882		16.109±3.492		17.328±2.987	
Prenatal education										
Yes	68	22.1	37.224±6.597	t=0.711	33.794±7.376	t=1.871	16.368±3.855	t=1.663	17.427±4.093	t=1.780
No	240	77.9	36.577±6.623	p=0.477	31.988±6.927	p=0.062	15.496±3.805	p=0.097	16.492±3.743	p=0.076
Daily internet time										
1 hour	39	12.7	37.302±6.489		32.051±8.651		15.385±4.552		16.667±4.397	
1–3 hours	163	52.9	36.650±6.414	F=0.225	31.951±7.032	F=0.680	15.491±3.902	F=0.664	16.460±3.745	F=0.578
3–6 hours	86	27.9	36.792±6.423	p=0.879	33.174±6.408	p=0.565	16.151±3.387	p=0.575	17.023±3.798	p=0.630
More than 6 hours	20	6.5	35.844±9.234		33.200±6.654		15.900±3.538		17.300±3.686	
Internet Information Trust										
Believe and consider internet info	65	21.1	36.479±6.475	F=0.093	34.277±5.678	F=8.634	16.477±3.373	F=7.034	17.800±2.852	F=7.669
Do not believe and consider internet info	78	25.3	36.614±7.343	p=0.911	29.744±8.069	**p=0.000**	14.346±4.251	**p=0.001**	15.397±4.522	**p=0.001**
Do not believe but consider internet info	165	53.6	36.866±6.334		32.891±6.714	PostHoc=1>2, 3>2 (p<0.05)	16.012±3.644	PostHoc=1>2, 3>2 (p<0.05)	16.879±3.667	PostHoc=1>2, 3>2 (p<0.05)
Reason for internet use during pregnancy										
Finding answers to every question	33	10.7	37.636±6.046	F=0.492	32.758±7.894	F=0.204	15.697±4.268	F=0.033	17.061±3.976	F=0.455
Information access	153	49.7	36.422±6.765	p=0.612	32.131±7.183	p=0.815	15.634±3.849	p=0.967	16.497±3.904	p=0.635
Ability to reach information at any time	122	39.6	36.846±6.589		32.607±6.698		15.754±3.705		16.853±3.728	
Internet information platforms										
Search engines	227	73.7	36.652±6.892	F=0.123	32.480±7.176	F=0.077	15.758±3.882	F=0.179	16.723±3.892	F=0.079
Forum sites	35	11.4	37.244±6.433	p=0.884	32.086±7.946	p=0.926	15.629±4.088	p=0.836	16.457±4.368	p=0.924
Social medias	46	14.9	36.656±5.310		32.152±5.762		15.391±3.389		16.761±3.135	

F: ANOVA Test; t: Independent Samples T-Test; PostHoc: Tukey, LSD.