



RESEARCH ARTICLE

Health-seeking behavior of first-time mothers toward pregnancy

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Abstract

This study was done to evaluate the health behaviors of first-time mothers during pregnancy. A hospital-based cross-sectional study was conducted among 220 first-time expectant mothers who attended the antenatal OPD. Non-probability purposive sampling technique was used to recruit the participants. The participants then completed a survey that captured their socio-demographic information and health practices during pregnancy using self-rated abilities for health practices (SRAHP) scale. SPSS software was used to analyze the data, using frequency, percentage, mean, standard deviation and chi-square test. Around 75% had poor adherence to health practices during pregnancy, while about a quarter (25%) showed average practices, and none demonstrated good health practices. Though they had low levels of health practices overall, participants had better nutritional practices, followed by psychological well-being and responsible health practices. Whereas, incorporating exercise into their daily routine was relatively lower. The study also identified significant associations between health practices and demographic variables such as the mother's age, educational background, occupation, and family income at $p < 0.001$. The study highlights poor adherence to health practices of expectant mothers. Therefore, promoting healthy practices during pregnancy through effective education and counseling strategies is strongly advised to raise awareness and enhance overall well-being.

Keywords: Pregnancy, Health-seeking behavior, Health practices, Primi mothers, Pregnant mothers.

Introduction

Pregnancy is a transformative experience that introduces new responsibilities, joys, and concerns, potentially altering the physical, mental, and health behaviors of mothers (Lou *et al.*, 2017). The lifestyle changes demand the health of both the mother and the baby (Moshki and Cheravi, 2016). World Health Organization (WHO) emphasizes proactive engagement with pregnant women regarding health-related practices such as maintaining a nutritious diet,

incorporating regular physical activity, ensuring adequate intake of food supplements, and refraining from substance use or abuse (World Health Organization, 2016). Such practices are fundamental during pregnancy and serve as determinants of the general health status of the mother (Ghahremani *et al.*, 2017). The health practices and lifestyles of expectant mothers typically influence the frequency and severity of common pregnancy discomforts, encompassing nausea, back pain, urinary incontinence, sleep quality, mental well-being, and notably, mood (Foxcroft *et al.*, 2013).

A woman's chance of ensuring the health of her baby improves as she incorporates healthy behaviors. Embracing health-seeking practices not only positively influences the well-being of expectant mothers, but also contributes to the optimal development of their offspring (Górnaczyk *et al.*, 2017). Some of the demographic factors need to be kept in mind, like educational attainment, employment status, income, religion, depression, and social support as it got impact on pregnancy outcomes. It is noteworthy that suboptimal health practices have repercussions, both in the short and long term, impacting the well-being of both the mother and the developing fetus (Alhusen *et al.*, 2016). Access to and utilization of antenatal care (ANC) emerge as crucial factors influencing the overall pregnancy experience. Healthy pregnancy culminates into a healthy baby and reduced pregnancy-related complications (World Health Organization, 2014). Hence, the current study is undertaken

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to assess the health practices of expectant mothers during pregnancy and explore the associated factors.

Materials and Methods

This cross-sectional study was conducted in a prenatal clinic of a tertiary care hospital in North Karnataka, India, to investigate the health practices during pregnancy and its associated factors among 220 first-time mothers. Participants were enrolled from the antenatal outpatient department during their ANC visits, using a non-probability purposive sampling technique. The study's inclusion criteria encompassed individuals who were first-time mothers, at 20 to 24 weeks of gestation, had a singleton fetus, and demonstrated a willingness to participate in the research. Once eligibility was determined, an informed consent form was administered, reviewed, and signed. The participants then completed a survey that captured their socio-demographic information and health practices during pregnancy using a self-rated abilities for health practices (SRAHP) scale. This 28-item tool utilized a 5-point scale to assess the self-perceived ability to engage in health-promoting behaviors. It comprised of four sub-scales: Nutrition, psychological well-being, exercise, and responsible health practices, each containing seven items. Responses ranged from 0 (not at all) to 4 (completely), with total scores ranging from 0 to 112, and each sub-scale had a potential range of 0 to 28. Total scores were obtained by summing sub-scale scores, where higher scores signified enhanced self-efficacy for health practices. The scores underwent conversion into percentages, where $\leq 50\%$ denoted poor health practices, 51 to 75% represented average practices, and $\geq 76\%$ signified good health practices. Participants were subsequently classified based on their scores, categorizing them into groups with good, average, or poor health practices.

The study received approval from the Institutional Ethics Committee on Human Subjects, indicating that all ethical standards have been adhered to the study.

Statistical Analysis

Data gathered were entered into MS Office Excel 2019 and subsequently imported into SPSS software version 20.0 (Armonk, IBM_SPSS-NY, USA) for thorough analysis. An exploratory analysis was conducted to verify the consistency and completeness of the data. Descriptive statistics were then employed to characterize participant traits. Furthermore, a Chi-square test was carried out to investigate the association between socio-demographic variables and health practices during pregnancy. A significance level of $p < 0.05$ was employed to ascertain statistical significance.

Results

Overall, most of the participants were in the age group of 21 to 25 years (57.7%, $n = 127$), with a formal education

(92.7%, $n = 204$), engaged as homemakers (71.4%, $n = 157$) and their family incomes fell within 10,001 to 20,000 Indian Rupees (47.3%, $n = 104$). More than half of the participants lived in joint family setups (65%, $n = 143$), resided in rural areas (57.3%, $n = 126$), and adhered to a mixed diet (56.4%, $n = 124$) (Table 1).

Table 2 provides insights into the health practices adopted by mothers during pregnancy. It was found that the majority of participants (75%, $n = 165$) exhibited a poor adherence to healthy practices. In contrast, one-fourth of the participants (25%, $n = 55$) demonstrated an average level, while none had good health practices during pregnancy.

Table 1: Socio-demographic characteristics of the participants, $n = 220$

Variables	Frequency	Percentage
Age group (in years)		
≤ 20 years	43	19.5
21–25 years	127	57.7
≥ 26 years	50	22.7
Religion		
Hindu	144	65.5
Christian	23	10.5
Muslim	53	24.1
Educational qualification		
No education	16	7.3
Primary education	82	37.3
Secondary	85	38.6
Graduate and above	37	16.8
Occupation		
Farmer	23	10.5
Homemaker	157	71.4
Laborer/daily wager	28	12.7
Employee	12	5.5
Family income/month (in INR)		
1–10000	99	45.0
10001–20000	104	47.3
≥ 20001	17	7.7
Type of family		
Nuclear	77	35.0
Joint	143	65.0
Area of residence		
Urban	94	42.7
Rural	126	57.3
Diet		
Pure vegetarian	44	20.0
Vegetarian with egg	52	23.6
Mixed	124	56.4

Table 3 indicates participants' belief that they have a better ability to engage in nutritional practices, with a mean of 12.26, followed by psychological well-being (11.87) and responsible health practices (11.85). Whereas, incorporating exercise into their daily routine was relatively lower, with a mean score of 6.63.

With a significance level set at $p < 0.05$, the findings presented in Table 4 demonstrate a statistically significant relationship between health practices during pregnancy and various socio-demographic variables among the study participants. Specifically, the age of the mother, educational status, maternal occupation, and family income exhibited significant associations with health practices, at $p < 0.001$.

Discussion

The results of the current study indicate that a significant majority (75%) of participants exhibited poor health practices during pregnancy. In contrast, one-fourth (25%) demonstrated average practices, with none falling into the category of good health practices during pregnancy. A similar study by Gebremariam *et al.* (2023) also showed that 45% of the mothers had poor health practices during pregnancy. The health behaviors of expectant mothers have the potential to impact both maternal and fetal well-being, influencing the overall outcomes of pregnancy (Widen and Siega-Riz, 2010).

The comprehensive mean score for health practices in this study was relatively low, amounting to 42.62 out of the attainable range of 0 to 112. This is in contrast to studies conducted by Hadian *et al.* (2021) in Iran, Yanikkerem *et al.* (2012) in Turkey, and Canella (2006) in New Jersey, which reported higher levels of health practices among pregnant women. According to Güney (2022), higher health practices during pregnancy were related to improved health behaviors, increased social support, and higher levels of education. These findings may be attributed to variances in socio-cultural and demographic factors across different countries. Additionally, in this study, exercise was the least adhered health practice with a mean score of 6.63 out of 28, which indicates that pregnant women did not incorporate exercise into their daily routine during pregnancy. Nguyen *et al.* (2022) in Vietnam also found that only 13% of pregnant women did physical exercise during pregnancy. Conversely, findings by Lindqvist *et al.* (2017) revealed a common desire among pregnant women to enhance their well-being by increasing physical activity and managing weight. Their motivation for lifestyle changes was deemed equal to their perceived ability to implement them.

Table 2: Level of health practices during pregnancy

Levels	Frequency	Percentage
Poor ($\leq 50\%$)	165	75.0
Average (51–75%)	55	25.0
Good ($\geq 76\%$)	0	0
Total	220	100

Table 3: Sub-scale scores and total score of self rated abilities for health practices scale (SRAHP), $n = 220$

Sub-scales	Mean and SD
Nutrition	12.26 \pm 4.34
Psychological well-being	11.87 \pm 3.52
Exercise	6.63 \pm 3.99
Responsible health practices	11.85 \pm 3.03
Total Score	42.62 \pm 12.30

Table 4: Association between levels of SRAHP with demographic variables

Variables	Levels of health practices			
	Poor		Average	
	n	%	n	%
Age group (in years)	Chi-square (d.f. = 2) = 42.292, $p = 0.001^*$			
≤ 20	37	86.0	6	14.0
21–25	108	85.0	19	15.0
≥ 26	20	40.0	30	60.0
Religion	Chi-square (d.f. = 2) = 2.513, $p = 0.285$			
Hindu	105	72.9	39	27.1
Christian	16	69.6	7	30.4
Muslim	44	83.0	9	17.0
Educational status	Chi-square (d.f. = 3) = 19.771, $p = 0.001^*$			
No education	14	87.5	2	12.5
Primary education	70	85.4	12	14.6
Secondary	63	74.1	22	25.9
Graduate and above	18	48.6	19	51.4
Occupation	Chi-square (d.f. = 3) = 54.865, $p = 0.001^*$			
Farmer	22	95.7	1	4.3
Home maker	129	82.2	28	17.8
Laborer/Daily wager	14	50.0	14	50.0
Employee	0	0	12	100.0
Family income/month (in INR)	Chi-square (d.f. = 2) = 17.880, $p = 0.001^*$			
1–10000	85	85.9	14	14.1
10001–20000	73	70.2	31	29.8
≥ 20001	7	41.2	10	58.8
Type of family	Chi-square (d.f. = 1) = 0.806, $p = 0.369$			
Nuclear	55	71.4	22	28.6
Joint	110	76.9	33	23.1
Area of residence	Chi-square (d.f. = 1) = 0.025, $p = 0.875$			
Urban	70	74.5	24	25.5
Rural	95	75.4	31	24.6
Diet	Chi-square (d.f. = 2) = 3.436, $p = 0.179$			
Pure vegetarian	31	70.5	13	29.5
Vegetarian with egg	44	84.6	8	15.4
Mixed	90	72.6	34	27.4

* $p < 0.05$

Our study findings also highlighted that there was a statistically significant association between health practices and age, education, occupation, and family income. Likewise, a study by Montazeri *et al.* (2023) found a notable relationship between health practices and variables such as educational attainment, occupational status, marital satisfaction and family income. On the contrary, Gebremariam *et al.* (2023) found that gravidity and parity had a significant association with health practices during pregnancy.

Poor health practices of mothers during pregnancy can significantly impact the well-being and development of the child, leading to enduring consequences for both the mother and the fetus. Expectant mothers, especially those experiencing pregnancy for the first time, might lack awareness regarding the significance of adopting healthy practices and their beneficial impact on pregnancy outcomes. Therefore, healthcare providers must prioritize the evaluation of pregnant women regarding their health practices. In instances where suboptimal practices are recognized, it is crucial to extend the necessary support by conducting health programs to increase mothers' awareness on healthy behaviors during pregnancy.

Conclusion

Our study found that most of the participants displayed poor adherence to health practices by expectant mothers during pregnancy. Despite displaying a low adherence to health practices overall, participants showed better self-efficacy for nutritional practices, followed by psychological well-being and responsible health practices. Whereas, their adherence to incorporating exercise into their routine was comparatively lower. Factors such as the mother's age, educational background, occupation, and family income were significantly associated with health practices. Encouraging awareness and improving overall well-being during pregnancy is highly recommended through the implementation of effective educational and counseling approaches that promote healthy practices.

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