

Perception of Pregnant Women's Toward Nutrition and their Benefits in Obstetric and Maternity Wards at Hospitals

Rasha Shehab Ahmed, Hanaa Hussein Mukhlif*

Department of Clinical Nursing Sciences, College of Nursing, Mosul University, Mosul, Iraq

*Corresponding Author's Email: hana.hussein@uomosul.edu.iq

ABSTRACT

Background: Information on healthy nutrition perceptions helps pregnant women improve nutrition quality in their daily lives. **Objective:** The study aims to assess the perception of pregnant women toward nutrition and their benefits in obstetric and maternity wards at hospitals. **Methods:** A descriptive design assesses dietary health perceptions from December 2023 to April 2024. The purposive sample of pregnant women in different stages of pregnancy who visited hospitals in Mosul was collected. The study tool consisted of demographic information, perceptions of nutrition (12 questions), and benefits of nutrition (8 questions). The data was systematically arranged and input into a statistical analysis program, with significance assessed using a probability threshold of ≤ 0.05 . **Results:** Participants (63.6%) reported taking supplements during pregnancy. Pregnant women (40%) had a lower perception of nutrition than pregnant women (60%), and there was a correlation between perceptions and the benefits of nutrition among pregnant women. **Conclusion:** According to the study's findings, fewer than half of pregnant women have a lower level of nutrition perception than the level of the benefits of nutrition. The demographic factors (age, residence, occupation, educational level, and family income) that influenced the perceptions and benefits of nutrition, except for taking nutritional supplements while pregnant. Pregnant women in the study area showed a strong association between their perception of and benefits from nutrition.

Keywords: *Benefits; Health; Nutrition; Perception*

INTRODUCTION

Pregnant women's safety during the parturition process is at risk, and birth care is still practised, which is not in line with scientific advancements (Rodrigues *et al.*, 2022). Since the high energy needs of the mother are linked to the significant metabolic, physiological, and structural requirements of the period related to the development of pregnancy, adequate nutritional support is required during the pre-gestational and post-pregnancy (Gomes *et al.*, 2022). With an adequate food intake, the nutritional needs of the foetus may be met, since its nutrient source is maternal feeding (Silva *et al.*, 2017). Which ensures better maternal and neonatal outcomes (Lunda *et al.*, 2018). Therapeutic nutrition has become common in many parts of the world, where different approaches to care (traditional and modern) are used simultaneously by women (Peprah *et al.*, 2018). According to Langley-Evans (2015), several factors influence newborns, including mothers' motivation to eat, nutritionally balanced dietary assessments, and information about optimal nutrition. Poor nutrition, on the other hand, raises the likelihood of an early birth (Aynaci, 2019). The perception and benefits of some basic nutrients (Martín-Rodríguez *et al.*, 2024) such as nutrient resources, and deficiencies of nutrients, vitamins, and minerals (e.g., iodine, iron) in pregnant women need to be increased (De-Regil *et al.*, 2015). Adherence to dietary guidelines (Kassie *et al.*, 2023; Al-Sammak *et al.*, 2020) a healthy diet during pregnancy should include sufficient amounts of energy, proteins, vitamins, and minerals from a variety of foods, such as fruits, vegetables, leafy greens, meats, eggs, cereals and tubers, legumes, oilseeds, and milk and dairy products, according to the World Health Organisation (WHO), which bases its recommendations on scientific evidence (Gomes *et al.*, 2022). The goal is to increase the quality of nutrition in pregnant women's daily lives by providing them with information from healthy nutrition guidelines (Dewidar *et al.*, 2023). to assist pregnant women in maintaining a safe, healthy, and balanced diet and to address the variables influencing their eating habits (Aynaci, 2019). Adequate nutrition is crucial for the growth and development of the foetus. Therefore, nurses should be aware of the nutritional habits of women that affect the development of the foetus and the preservation of the mother's health throughout pregnancy and after delivery (Ali & Al Jwadi, 2024). The study aimed to assess the perception of pregnant women toward nutrition and

Received: July 22, 2024, Received in revised form: August 16, 2024, Accepted: January 6, 2025

benefits in obstetric and maternity wards at hospitals.

METHODOLOGY

Study Design

The study used a descriptive design to assess the perception among pregnant women about nutrition and benefits and examine the relationship with their demographic information. The study runs from December 2023 to April 2024.

Study Sample

The study sample was collected from women who visited Mosul hospitals. A nonprobability (purposive) sample of (250) pregnant women in different stages of pregnancy; the inclusion sample included pregnant women at different stages of pregnancy who agreed to participate in the study and visited the target hospital during the study period, while the exclusion sample included non-pregnant women who refused to participate in the study.

Study Settings

The study was carried out at four hospitals located within Mosul City, Iraq.

Study Instrument

The study tool consisted of two sections: Section One: Collecting demographic information about the pregnant woman's age, place of residence, occupation, educational level, family income, and whether if takes nutritional supplements during pregnancy). The second section consisted of two parts the first is pregnant women's perception of nutrition and includes 12 questions, and the second is women's perception of the benefits of food and includes 8 questions (Misan et al., 2019; Keyata, 2018). For each question there were three choices: yes (3), I don't know (2), and no (1). Data was collected from pregnant women through direct interviews following verbal consent, each interview lasting approximately 20-25 minutes over three months. The questionnaire tool was validated by (13) experts, and its reliability was evaluated at (0.81).

Statistical Analysis

The data was organised and entered into a statistical analysis program. The significance of the data was determined using a probability value of less than or equal to 0.05. For this study, descriptive statistics were calculated using SPSS software version 26, with frequency. Inferential statistics is used to find the relationship between variables. The level determines when the mean is greater than 2; pregnant women have a good level of perceptions and benefits, and when the mean is less than or equal to 2, the perceptions and benefits are poor.

Ethical Consideration

The researchers obtained ethical clearance from the College Committee for Medical Research Ethics of the University of Mosul, Iraq with reference number CCMRE-Nur-23-28 on 13th December, 2023.

RESULTS

Table 1: Distribution of Demographic Information of the Sample (n=250)

Demographic Information	Frequency	Percent	
Age	Less than 20 Year	46	18.4
	20-30 Year	98	39.2
	31 Year and more	106	42.4
Residence	Urban	184	73.6
	Rural	66	26.4
Occupation	Employee	68	27.2
	Housewife	182	72.8
Educational level	Read and write	58	23.2
	School Certificate	98	39.2
	Diploma Certificate	31	12.4
	Bachelor Certificate	63	25.2
Family Income	Weak	40	16.0
	Moderate	162	64.8
	Good	48	19.2
Take nutritional supplements during pregnancy	Yes	161	64.4
	No	89	35.6

In this table 1 most of the participants (42.4%) were aged of 31 year and older, the age group with the lowest frequency (Less than 20 Year) was 18.4%. The percent (73.6%) of the participants resided in urban areas. Regarding of educational level, the participants had varying levels of education. The highest percentage was a school certificate (39.2%) and the lowest percentage was a diploma (12.4%). About occupation, 72.8% were housewives, while 27.2% were employees. Family income was moderate (64.8%) among participants. The pregnant women answer to take nutritional supplements during pregnancy was positive for 64.4%.

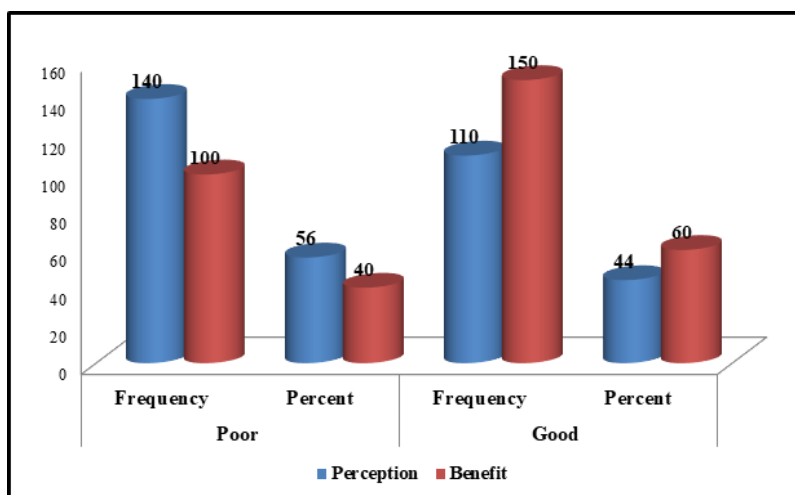


Figure 1: Shows the Levels of Perception and Benefits of Nutrition among Pregnant Women in Obstetric and Maternity Wards at Hospitals.

Figure 1 shows that the level of awareness of pregnant women about the benefits of good nutrition was 60%, and it was higher than the level of awareness of pregnant women about nutrition, which reached 44%.

Table 2: Association between Perception of Pregnant Women towards Nutrition with their Demographic Information of the Sample (n=250)

Variables		Perception		Chi-Square Tests		
		Poor	Good	Value	df	Sig.
Age	Less than 20 Year	40	6	22.231	2	0.000 S.
	20-30 Year	50	48			
	31 Year and more	50	56			
Residence	Urban	93	91	8.422	1	0.004 S.
	Rural	47	19			
Occupation	Employee	21	47	23.916	1	0.000 S.
	Housewife	119	63			
Educational level	Read and write	42	16	11.975	3	0.007 S.
	School Certificate	54	44			
	Diploma Certificate	18	13			
	Bachelor Certificate	26	37			
Family Income	Weak	35	5	19.176	2	0.000 S.
	Moderate	81	81			
	Good	24	24			
Take nutritional supplements during pregnancy	Yes	92	69	0.240	1	0.624 N.S.
	No	48	41			

The association between pregnant women's perceptions of nutrition and their age, place of residence, occupation, educational attainment, and family income is statistically significant, as demonstrated in the table above. However, there is no connection between the perception and using dietary supplements during pregnancy (Table 2).

Table 3: Association between Benefits of Pregnant Women towards Nutrition with Their Demographic Information of the Sample (n=250)

Variables		Benefits		Chi-Square Tests		
		Poor	Good	Value	df	Sig.
Age	Less than 20 Year	31	15	18.838	2	0.000 S.
	20-30 Year	37	61			
	31 Year and more	32	74			
Residence	Urban	66	118	4.954	1	0.026 S.
	Rural	34	32			
Occupation	Employee	26	42	0.121	1	0.728 N.S.
	Housewife	74	108			
Educational level	Read and write	33	25	10.935	3	0.012 S.
	School Certificate	34	64			
	Diploma Certificate	14	17			
	Bachelor Certificate	19	44			
Family Income	Weak	28	12	20.179	2	0.000 S.
	Moderate	51	111			
	Good	21	27			
Take nutritional supplements during pregnancy	Yes	63	98	0.142	1	0.706 N.S.
	No	37	52			

S= Significant, NS= Non-Significant

The Chi-Square test showed significant association between age, residence, level of education, and family income with benefits, while no significant association was observed for occupation and presence of supplements among pregnant women (table 3).

Table 4: Correlation Coefficient between Perception and Benefits of Pregnant Women Towards Nutrition

Correlations	Pearson Correlation	Sig. (2-tailed)	N
Perception Benefits	0.132*	0.038	250

*Correlation is significant at the 0.05 level (2-tailed)

In table 4, Statistical analysis revealed that pregnant women's perceptions of nutrition and its benefits throughout pregnancy significantly associated (0.038) between perception and benefits.

DISCUSSION

Variety of food is important for the nutrition of pregnant women (Al Tae & Al mukhtar, 2021), and nutritional awareness during different stages of pregnancy might vary greatly between nations because of variations in culture and way of life (Fang *et al.*, 2024). The dietary perceptions of expectant mothers have been the subject of much research in a few chosen nations or areas (Killel *et al.*, 2024), but not many studies have looked at it during various phases of pregnancy (Fang *et al.*, 2024). The current study looked into how expectant mothers receiving antenatal care in maternity hospitals perceived nutrition and its advantages during pregnancy. The respondents' varying educational backgrounds could be the cause of this. Additionally, this survey revealed that over half of the participants believed that eating was important for pregnant women and that nutrition was important (Fekadu Beyene, 2013). The study's findings show that over half of the women did not have the most basic understanding of the significance and sources of most vitamins and minerals (Fouda *et al.*, 2018). This was in contrast to the study done in Malawi, which found that 70% of pregnant women had perceptions about nutrition (Saville *et al.*, 2016). This discrepancy may be attributed to cultural differences and variations in health education programs. One possible explanation for this inadequate nutritional knowledge is the lack of perceptions regarding nutrition during pregnancy, which was marginally higher than the findings of an Indian study that found 62% of expecting mothers took iron folate tablets as recommended during prenatal care (Pratim *et al.*, 2013). During prenatal care, the majority of pregnant women (77%) in the study area had taken folic acid supplements (El-mani *et al.*, 2014). In addition, the present data suggests that pregnant women are more aware of the benefits of good nutrition during pregnancy compared to their general perceptions of nutrition itself. There was a statistically significant relationship between pregnant women's perception of the benefits of nutrition and pregnant women's perception of the benefits of nutrition. Pregnant women generally exhibit a higher awareness

of the benefits of good nutrition during pregnancy compared to their overall perceptions of nutrition (Mehboob & Sanghi, 2023). Studies indicate that pregnant women often lack comprehensive nutrition perceptions despite understanding the importance of adequate nutrition during pregnancy (Sangwan *et al.*, 2022).

This study also highlights the varying levels of perception among pregnant women regarding nutrition and its benefits, emphasizing the need for improved awareness. The findings suggest that while 60% of participants recognized the benefits of good nutrition, only 44% had a strong perception of nutrition itself. This gap aligns with prior research indicating that nutritional knowledge among pregnant women is often inadequate (Fekadu Beyene, 2013). The study also found that demographic factors such as age, residence, occupation, educational level, and family income significantly influenced both perception and benefits of nutrition, except for taking nutritional supplements, which showed no significant association (Table 2). These results support previous findings that socio-economic and educational backgrounds play a crucial role in shaping nutritional awareness (Fang *et al.*, 2024).

The strong association ($p=0.038$) between perception and benefits of nutrition highlights the importance of enhancing maternal nutrition education. Studies suggest that improving dietary knowledge can lead to better pregnancy outcomes and overall maternal health (Mehboob & Sanghi, 2023). So, this study underscores the need for targeted nutritional interventions, particularly in low-awareness populations. Future initiatives should include educational campaigns, digital health platforms, and improved dietary guidelines to bridge the knowledge gap and promote better maternal and foetal health.

Limitation

This study faced challenges in identifying a quiet and secure environment conducive to conducting interviews with participants. Additionally, the participation of some patients was restricted due to the severity of their medical conditions, which hindered their ability to engage in the study.

CONCLUSION

The current study concluded that most women have a lower level of awareness of nutrition during pregnancy than the level of awareness of the benefits of nutrition. The demographic variables had an impact on perception and benefits, except for taking nutritional supplements during pregnancy, and the mother's occupation did not affect nutritional benefits. The perception among pregnant women is not related to the benefits of nutrition. Pregnancy outcomes are primarily determined by the nutrition and health-related behaviours that are suggested during the first trimester of pregnancy, and the study suggests that enhancing perception and benefits during this time is crucial. Nurses advise pregnant women to maintain excellent health, avoid gaining too much weight during pregnancy, and seek advice on eating a nutritious diet. Emphasizing the critical nurses' role in providing a healthy diet during pregnancy. Create educational initiatives focused on pregnant women. In addition to providing educational materials such as brochures and booklets, these initiatives can be implemented through nutrition awareness seminars and workshops by nurses. Future research can explore the long-term impact of nutrition awareness programs on pregnancy outcomes and child health. Additionally, studies can assess the effectiveness of digital platforms and mobile applications in improving pregnant women's nutritional knowledge and behaviour.

Recommendation

Emphasizes the critical nurses' role to advise maintaining good health, avoiding gaining too much weight, and providing a healthy diet during pregnancy. Create educational initiatives focused on pregnant women. In addition to providing educational materials such as brochures and booklets, these initiatives can be implemented through nutrition awareness seminars and workshops by nurses.

Conflict of Interest

There is no conflict of interest declared by the authors.

ACKNOWLEDGEMENT

The authors extend their gratitude to Mosul University, Iraq, for its commitment to sponsoring the research, as well as to the pregnant women who participated in the study.

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