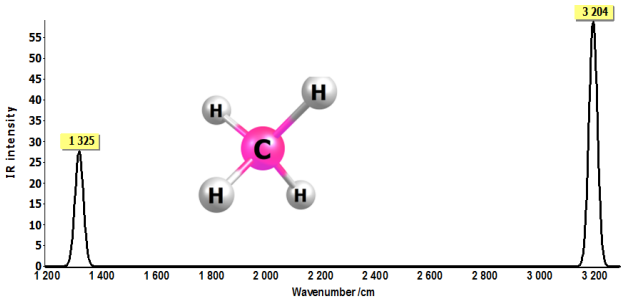
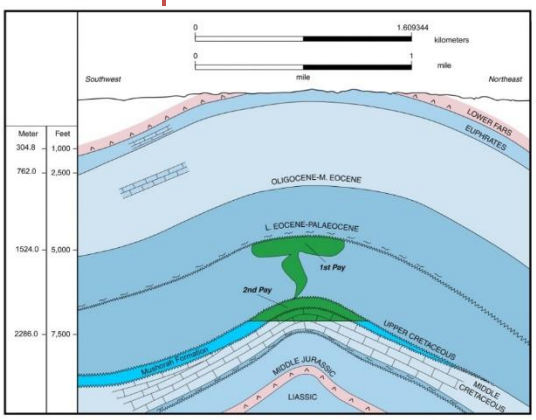
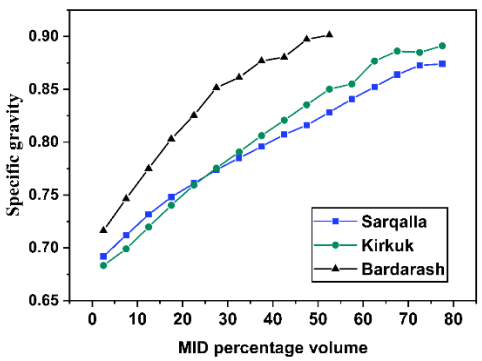
JOURNAL OF ZANKOY SULAIMANI

Part -A- (Pure and Applied Sciences)
VOLUME 25 ISSUE 1 June 2023
ISSN: 1812-4100
www.jzs.univsul.edu.iq







Journal homepage www.jzs.univsul.edu.iq
Journal of Zankoy Sulaimani
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ISSN:1812-4100

Pregnant Women's Knowledge Regarding Healthy Nutrition during pregnancy at Shahid Hama Rash Primary Health Center, Sulaimaniyah, Iraq

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Article info

Original: 05/10/2022
Revised: 30/10/2022
Accepted: 02/11/2022
Published online: 20/06/2023

Keywords:
Knowledge, pregnant women, healthy nutrition, primary health center

Abstract

Background: In the antenatal period, the nutritional demand of women upsurges to compensate for physiological and psychological changes and nutritional computations by the growing fetus for energy, macro, and micronutrients. Nutrition knowledge is essential in conscious of ample nutrition intake among pregnant women. **Objective:** This study aimed to assess pregnant women's knowledge of healthy nutrition **Materials and Methods:** The non-probability convenient method was used as the sampling technique in this descriptive study. The process of data collection was continued from 26th July 2022 to 26th September 2022. A hundred women were selected from Shahid Hama Rash Primary Health Center, Sulaimaniyah, Iraq. A well-designed questionnaire was constructed, in which its first part includes sociodemographic characteristics and the second part includes questions regarding participants' knowledge. **Results:** We showed that 82% of participants had good knowledge, as well as 18% of them, had fair knowledge regarding healthy nutrition. At the same time, none of the pregnant women had poor knowledge. **Conclusions:** We concluded that most study participants had good knowledge, and no significant association was found between knowledge of pregnant mothers and their sociodemographic variables.

Introduction

Pregnancy is a crucial period in women's lives where they experience many physiological changes in their bodies. Pregnant women are exposed to physical, physiological, and mental changes all along the pregnancy period (1).

To maintain a healthy pregnancy, approximately 300 extra calories are needed daily. These calories should come from a balanced diet of protein, fruits, vegetables, and whole grains. In addition, sweets and fats should be kept to a minimum (2). A healthy, well-balanced diet can also help reduce pregnancy symptoms, such as nausea and constipation (3). In the antenatal period, the nutritional demand of pregnant women upsurges to compensate for physiological and psychological changes and nutritional computations by the growing fetus for energy, macro, and micronutrients (4).

Increased needs for energy, macronutrients, and micronutrients are required throughout the pregnancy period to provide the needed nutrients to the growing fetus and to ensure the health and well-being of the mother (5). Unfortunately, women in developing countries are at risk of malnutrition and nutritional deficits during pregnancy resulting in negative pregnancy outcomes such as delay in fetal growth and development, pre-term delivery, low birth weight, and maternal anemia (4).

Nutrition knowledge is essential in creating awareness of adequate nutrition intake among pregnant women (6). Conversely, a lack of sufficient nutrition knowledge is an instant cause of malnutrition (7). Every human being, especially pregnant women, has a motive to avoid sickness if foods are correctly healthy and regulated. The health of women and their unborn children is significantly improved by knowledge about nutritious foods (8). Thus, this study aims to ascertain how much pregnant women are knowledgeable about a healthy diet.

Materials and Methods

Patients and study setting

This descriptive study was carried out at the Shahid Hama Rash Primary Health Center (PHC), Sulaimaniyah, Iraq, on 100 pregnant women in 2 months, from 26th July 2022 to 26th September 2022. The researcher collected data by using direct interview, face-to-face questioning, with each questionnaire taking ten minutes to complete. The only reason the researchers chose this center was to ensure that all participants in the training session for identifying the knowledge of pregnant women shared similar educational and socioeconomic backgrounds.

Inclusion criteria

Pregnant women attended the Shahid Hama Rash PHC during the indicated period.

Exclusion criteria

Non-pregnant women and women with mental illness and severely ill patients were omitted from our study.

Questionnaire

In order to collect the data, a well-designed questionnaire was constructed that was composed of 2 parts. The first part deals with the sociodemographic characteristics of patients, which include age, gender, gravidity, type of family, occupation, and trimester of pregnancy. The second part consists of questions regarding participants' knowledge of healthy nutrition, including 26 items. For evaluating, the pregnant knowledge about nutrition, a score of 1 was given for "True" answer and a score zero for a “False” answer. Regarding knowledge according to SPSS, the participant who answered 0-8 of the question correctly were considered poor knowledge, for whom answered 9-17 were regarded as fair knowledge, and those who answered 17- 26 were considered good knowledge.

Patient consent and ethical approval

Patients were provided an explanation about the purpose of the study, and informed consent was obtained. The scientific and ethics committees of the College of Nursing, University of Sulaimani, approved the study protocol. Before collecting data, formal authorization was obtained from health and government authorities.

Data analysis

After data collection, the data were analyzed by using SPSS version 22. The Chi-Square test was used to evaluate any significant association between variables. P-value <0.05 was considered significant.

Results

Table 1 shows that the majority of respondents aged 30-39 years and most of the pregnant women were graduates from primary school (34%), multigravida (78%), in their first trimester of pregnancies (46%),

housewives (90%), and 80% were from extended family. In contrast, 94% had barely sufficient economic status.

Table 1. Distribution of samples according to their sociodemographic data.

Sociodemographic data	Frequency	Percentage
Age (Year)		
<20	14	14
20-29	36	36
30-39	40	40
>40	10	10
Education level		
Illiterate	28	28
Read and write	8.0	8.0
Primary school	34	34
Secondary school	16	16
Institute and university	14	14
Gravidity		
Primigravida	20	22
multigravida	80	78
Type of family		
Nuclear	20	20
Extended	80	80
Economic status		
Sufficient	4.0	4.0
Barely sufficient	94	94
Insufficient	2	2
Occupation		
Governmental employee	10	10
House wife	90	90
Gestational age		
First trimester	46	46
Second trimester	42	42
Third trimester	12	12

Table 2 reveals that pregnant women had very good knowledge in questions 3, 5, 6, 7, and 17 whereas fair in 12 and 23. Concerning the pregnant knowledge on taking folic acid and iron supplements according to the physician's order, taking alcohol during pregnancy, eating vegetables daily 2-3 times, eating fruit daily 2-3 times, and increasing drinking water has a good effect on pregnancy, 100% of pregnant women knew and correctly answered.

Table 2. Knowledge of the patients regarding healthy nutrition.

Knowledge	True No. (%)	False No. (%)
1. Pregnant women should not increase the vegetable	68(68)	32(32)
2. Pregnant women must increase their drinking of tea	94 (94)	6.0(6.0)
3. Take folic acid and iron supplements according to the physician's order	100 (100)	0.0(0.0)
4. Pregnant women need to increase the amount of fruit	98(98)	2.0(2.0)
5. You can take alcohol during pregnancy	100(100)	0.0(0.0)
6. Eat vegetables daily 2-3 times	100(100)	0.0(0.0)
7. Eat fruit daily 2-3 times	100(100)	0.0(0.0)
8. Eat legumes daily 2-3 times	88(88)	12(12)
9. Drink milk or dairy products daily	98(98)	2.0(2.0)
10. Do not eat well due to low-birth-weight baby	92(92)	8(8)
11. Every day, eats 3-5 meals per day	94(94)	6(6)
12. Pregnant women must increase (meat, poultry, and fish) in their diet	12(12)	88(88)
13. Eating canned fish is bad for Pregnant women in the first trimester	52(52)	48(48)

Table 2: continue

14. Eating a large amount of sugar has no bad effect on pregnant	70(70)	30(30)
15. Smoking does not affect Pregnant women	70(70)	30(30)
16. Eating a large amount of salt is bad	72(72)	28(28)
17. Increased drinking of water has a good effect on pregnancy	100(100)	0.0(0.0)
18. Processed food (sausage, mortadella, etc.) has no bad effect on Pregnant women	84(84)	16(16)
19. Fresh fruit juices are better than the whole fruit itself	60(60)	40(40)
20. Pregnant women can eat egg	92(92)	8.0(8.0)
21. Pregnant women must increase saturated fat (animal fat).	88(88)	12(12)
22. Pregnant women must duplicate their foods	86(86)	14(14)
23. Pregnant women must increase eat foods containing bread and rice (present in our market)	40(40)	60 (60)
24. Pregnant women must increase their drinking of coffee	92(92)	8.0(8.0)
25. Drinking tea after meals is good	84(84)	16(16)
26. Drinking fizzy beverages harmful to pregnant	86(86)	14(14)

Table 3 shows no relationship between some sociodemographic variables and the overall level of knowledge regarding healthy nutrition.

Table 3. Relationship between knowledge and some sociodemographic data.

Sociodemographic data	**N1 (%) Good**	**N1 (%) Fair**	**p-value**
Age (Year)			
<20	10(71.4)	4.0(28.6)	0.442
20-29	32(88.9)	4.0(11.1)	0.442
30-39	34(85)	6.0(15)	0.442
>40	6.0(60)	4.0(40)	0.442
Education level			
Illiterate	22(78.6)	6.0(21.4)	0.843
Read and write	4(100)	0(0)	0.843
Primary school	28(82.4)	6(17.6)	0.843
Secondary school	14(87.5)	2(12.5)	0.843
Institute and university	10(71.4)	4(28.6)	0.843
Gravidity			
Primigravida	18(90)	2.0(10)	0.8
Multigravida	64 (81.3)	16(18.7)	0.2
Type of family			
Nuclear	16(80)	4.0(20)	1.0
Extended	14(17.5)	66(82.5)	1.0
Economic status			
Sufficient	2.0(100)	0(0)	0.704
Barely sufficient	18(19.1)	76(80.9)	0.704
Insufficient	4.0(100)	0.0(0.0)	0.704
Occupation			
Governmental employee	6.0(60)	4.0(40)	0.177
Housewife	76(84.4)	14(15.6)	0.177

Figure 1 displays that 82% of participants had good knowledge of a healthy diet, 18% had fair knowledge, and none had poor knowledge.

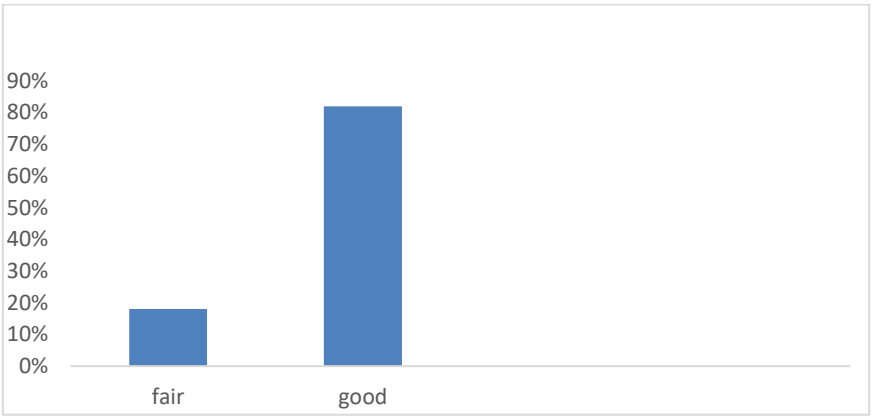

Figure 1. Overall, sample knowledge's regarding healthy nutrition.

Discussion

This study aimed to assess the knowledge of healthy nutrition during pregnancy. Accordingly, 82% of the population were knowledgeable as well as 18% of them had fair knowledge regarding healthy food, and no one had poor knowledge because Shahid Hama Rash PHC provides education about healthy food and observation of pregnant women that have an important role in increasing pregnant knowledge concerning healthy nutrition. Additionally, most of the participants in our study who were multipara women had greater knowledge since they visited the PHC more frequently and provided more information. The participants received knowledge from their families, social media, and the Shahid Hama rash PHC Center.

A similar study was conducted in east Wollega, where 65% of participants knew about nutrition during pregnancy (9). This discrepancy could be attributed to sociodemographic variations between populations. Our finding is dissimilar to the study done in rural Punjab (10), which shows that 77.7% of pregnant women did not know. This dissimilarity could be due to variations in study time and settings. In addition, it could be due to sociodemographic variations among the study populations.

Regarding sociodemographic characteristics, our study shows that the highest percentage (40%) of the sample age was between 30-39 years and graduated from primary school (34%). From a researcher's point of view, those females were married at an early age before completing their studies, and they dropped out of school after marriage. Besides, the highest number of multigravida women in this study might be attributed to the fact that in our community, recently, the women prefer >1 child. In addition, most (90%) of pregnant women were housewives, which might be attributed to women not working outside being happy to become pregnant (11).

The present study's finding shows there is no relationship between some sociodemographic variables and the overall level of knowledge regarding healthy nutrition. A similar study (12) about nutrition knowledge during pregnancy and associated factors among antenatal mothers concluded that there is no association between socio-demographics and knowledge scores among antenatal mothers. While, there are some study meted out in Baghdad (13) Malaysia (14) Swaziland (15) and India (16), agreement with our study that has shown that there was no significant association between age with mother information but there is a disagreement with our study that they determined that in all study there are a big association with knowledge of the dietary with higher. In the study done in Southern Ethiopia (6), the finding disagrees with our results: maternal educational status, occupation, and parity are associated with nutritional knowledge.

Conclusions

The study concluded that most of our study participants had good knowledge, and no significant association between knowledge of pregnant mothers and sociodemographic variables could be found. Therefore, the regional and zonal health units should disseminate nutrition information to the community by using different media besides the advancement of antenatal maternal education about nutritional and dietary importance during pregnancy. As a final point, the researchers' advice that only primigravida women be used in future studies about knowledge in order for the findings to be powerfully generalized.

Acknowledgments

The authors would like to thank the healthcare staff from Shahid Hama rash PHC Center for their kind help and support of this study.

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