DOI: https://doi.org/10.53350/pjmhs2023175518

ORIGINAL ARTICLE

Knowledge and Attitudes of Pregnant Women Towards Dietary Supplements and Alternative Medicine for the City of Mosul

EMAN LUAY[1], SALWAH H. ALMUKHTAR[1]
[1]*Professor, College of Nursing, University of Mosul-Iraq*
Correspondence to: Salwa Hazim Al-Mukhtar, Email: dr.salwa@uomosul.edu.iq, Cell: +964-770=337-6490

ABSTRACT

Background: Alternative medicine is a term used to describe treatments that may receive along with traditional medicine. Examples of aalternative medicine include massage, meditation, biofeedback, tai chi, reiki, music therapy, guided imagery, herbal medicines and dietary supplements. This study aimed to Determine pregnant women's knowledge and attitudes about dietary supplementation and alternative medicine.

Methodology and materials: A Cross-Sectional study design was used to achieve the present study's objectives from the 10th of December 2021 to the 1st of March 2022. A structured interviewing questionnaire was used to collect data from 250 pregnant women at Al Khansa, Al Salam, Al-Batool, and Mosul General hospitals in Mosul city.

Results: The majority (62.8%) of pregnant women's age group was (21-30), and the mean age was of mothers (28.4). (51.6%) of the pregnant were homemakers, (31.2%) were employees, and knowledge of pregnant women using supplements was 1.7973, while knowledge of pregnant women using alternative medicine was 1.627. Pregnant women's attitudes about nutritional supplements and alternative medicine are 2.9331

Conclusion: the knowledge level about supplements and alternative medicine was moderate, and this knowledge was associated with their attitudes. There is a significant relationship between demographic information and their knowledge and attitudes, while BMI and husband occupation were insignificant.

Recommendation: Ministry of Health must adopt education through health promotion programs about the safe use of dietary supplements and alternative medicine for pregnant women and better understand the reasons and facilitators. Also, encourage pregnant women through different media to consulate the doctors and nurses before using any nutritional supplement or alternative medicine to prevent complications and side effects.

Keywords: Knowledge, pregnant, Mosul, Iraq.

INTRODUCTION

The World Health Organization defines dietary supplements and alternative medicine as "a broad group of health-care approaches that are not part of a country's tradition or not integrated into its main health-care system."[(1)]. Complementary medicine is a broad range of therapeutic and diagnostic approaches that can be utilized alone or in conjunction with traditional medical care. Because they were little understood and separated from conventional healthcare in the 1980s, these therapies were called "alternative," "non-conventional," or "unorthodox."[(2)].These women use a variety of nutritional supplements and complementary medicines, including herbs, vitamins, and minerals, massage, aromatherapy, and psychological, physical, and spiritual therapies [(3)]. The dietary habits of pregnant women are important for the proper progression of pregnancy and the development and health of the foetus during pregnancy, and diets should be balanced in terms of macronutrients and micronutrients. The daily energy requirements for healthy women of normal weight and who have a moderately active lifestyle increase during pregnancy and are based on the trimester of the foetus [(4)].During the first, second, and third trimesters, pregnant women may experience many problems such as diarrhoea, constipation, heartburn, threatened abortion, bleeding, or cramps, while the second and third trimesters have problems with the placenta, high blood pressure, diabetes, thrombosis, or varicose veins in the feet [(5)]. Antenatal care (ANC) is a critical component of the reproductive health care continuum, which encompasses health promotion, screening and diagnosis, disease prevention, and nutritional supplement advice for pregnant women where every pregnant woman and newborn receives high-quality care throughout pregnancy, delivery, and postpartum [(6)]. the aim of the study is measure knowledge of pregnant women towards dietary supplements and alternative medicine for the city of Mosul.

METHODS

A cross-Sectional study design was used to achieve the present study's objectives from the 10th of December 2021 to the 1st of March 2022. This study was conducted in (4) maternity and obstetric hospitals in Mosul/ Iraq A purposive sample consisted of (250) pregnant women using complementary and alternative medicine. Data were collected from the 10th of December 2021 to the 1st of March 2022. Averaged 4 hours per day, 3 days per week. The sample collected includes women hospitalized in spontaneous labour or transferred from prenatal care units for induction of labour who had given birth.The structured questionnaire was the main tool used to collect information to assess pregnant women's knowledge of and attitude towards using nutritional supplements and alternative medicine. The answers to the questions took about ten minutes to a third of an hour and contained mostly closed-ended questions (yes or no), as well as "Likert Attitude Scale" and questions Dichotomous directly. Information was taken by interviewing pregnant women face to face, and it is made up of three sections. The first section captured Socio-demographic data, including the mother's age, BMI, residence, educational level, mother's occupation, husband's job, economic status, and smoking cigarettes. The second section captured the women's knowledge about vitamins and nutritional deficiencies. A five-point Likert scale ranging from 1 strongly agree to 5 strongly disagree was used to capture the community pharmacists' knowledge—the last section covered pregnant attitudes towards nutritional and supplementary products and alternative medicine.

1 Socio-demographic data: This part of the questionnaire contains (10) items, including the mother's age, BMI, residence, educational level, occupation, husband job, economic status, and smoking cigarettes.

2 obstetrics and gynaecology history, this part of the questionnaire contains (7) items, number of live births, method of delivery, gestational age per week, mother and child care unit visits(ANC), Pregnancy complications, miscarriage and chronic diseases.

3 Information about uses of nutritional supplements and alternative medicine, this part of the questionnaire contains the use of nutritional supplements and alternative medicine, which includes Spiritual treatment and alternative medicine regimens, vitamins, minerals and herbs.

4 Information about Knowledge this part of the questionnaire contains the knowledge of pregnant women about the use of nutritional supplements and alternative medicine.

5 Information about attitude: This part of the questionnaire contains the attitude of pregnant women about using nutritional supplements and alternative medicine.

The sample was collected from Sunday to Thursday from (8.00 A.M) until (1.00 P.M) in the afternoon from the hospitals mentioned in the study data were collected using a structured interviewing questionnaire and interview duration (15-20) minutes with each pregnant woman and the data was collected form period extended from 10th of December 2021 to 1st of March 2021 in four Mosul city teaching hospital. The data was entered into the computer, and the statistical package was used using the program (SPSS version 25).

RESULT

Table 1: Distribution of the Study Sample According to the Socio-demographical Characteristics with comparison Significant (N=250).

Variable	Variable Category	F	%
Maternal age	20<	22	8.8
	21-30	157	62.8
	31-40	71	28.4
	Total	250	100
$x^2 = 122.088$ df= 2			
educational level	not read	63	25.2
	primary	32	12.8
	Secondary school	56	22.4
	institute	61	24.4
	college	38	15.2
	Total	250	100
$x^2 = 15.880$ df= 4			
Place of residence	city	155	62
	rural	95	38
	Total	250	100
Occupation status of pregnant	employed	78	31.2
	have your own business	43	17.2
	housewife	129	51.6
	Total	250	100
$x^2 = 44.888$ df= 2			

Table 2: Knowledge of pregnant women about the use of nutritional supplements

No	Statements	not know		not sure		know		Mean	S.D	%
		F	%	F	%	F	%			
1	Vitamins are an important component to increase the immunity of a pregnant woman	2	8	132	52.8	116	46.4	2.46	0.515	82.00
2	Iron is the most mineral that a woman needs to treat anemia and for the growth of the fetus?	2	0.8	87	34.8	161	64.4	2.64	0.498	88.00
3	Vitamin D is important for building the bones of the fetus and promotes healthy eyesight and skin?	94	37.6	51	20.4	105	42.0	2.04	0.893	68.00
4	Vitamin folic lion fortified and prevents fetal abnormalities and the development of the placenta	17	6.8	146	58.4	87	34.8	2.28	0.582	76.00
5	Iodine is essential for brain development	23	93.2	15	6.0	2	0.8	1.08	0.294	36.00
6	Vitamin E is important and helps in the growth of bones	228	91.2	21	8.4	1	0.4	1.09	0.303	36.33
7	Vitamin B12 helps in the formation of red blood cells	16	67.2	53	21.2	29	11.6	1.44	0.693	48.00
8	Omega-3 fatty acids are important for genetic brain development	14	58.0	79	31.6	26	10.4	1.52	0.678	50.67
9	Vitamin C promotes healthy gums and teeth	14	58.8	50	20.0	53	21.2	1.62	0.813	54.00
	Total		46.0		28.2		25.8	1.797	0.440	59.89

DISCUSSION

The current study shows the maternal age group of mothers (21-30) was (62.8%) and (8.8%) of mothers were in the age group (>20) years. The finding of another study conducted by Kamau, M and others in Iraq partial agrees with the present study on the age distribution [(7)]. The finding shows that (62%) of mothers live in the city, and (38%) of mothers live in rural. These results go beyond previous reports, showing that (58.3%) of mothers live in urban and (41.7%) of mothers live in rural [(8)]. The present study shows that (51.6%) of the pregnant were homemakers, (31.2%) were employees, and (17.2%) were private workers. This result ties well with a previous study wherein it found that the professional housewives (47.4%) were employees (33.2%) and private workers (19.4%) [(9)]. The present study confirmed the findings about (25.2%) of mothers were illiterate,12.8% of the mother were in primary education (22.4%) of mothers were in secondary school, (24.4%) of mothers were in the institute, and(15.2%) were had university degrees. It is generally accepted that: because (38%) of mothers live in rural areas, as shown in this study, which can affect the mother's education and the difficulty of going to school because of distance or for reasons related to customs and traditions. By comparing the results from Cairo, the finding confirms that Mother's educational level approximately agrees with the present study finding that the distribution among the mothers showed that (24.1%) of mothers were illiterate, (11.6%) completed primary school, (25.0%) secondary school, (18%) of mothers were institute and(21.3%)had university degrees([9]).The present findings show (that 26%) of husbands are employed, and(74%) of husbands have \ their own business; The findings are directly in line with previous findings in Island Indonesia (67.9) husbands have \ their own business and (32.1) husband employed[(10)].Another promising finding was that (42.8) of mothers were income monthly income of less than 500) thousand,(31.6)of mothers were income monthly income (of 500,000-1,000,000) and(25.6) of mothers were income monthly income of more than (1,000,000). The highest percentage was (>500,000) because the highest percentage at the educational level are homemakers, due to the customs, traditions and economic situation in the country and the Occupation status of the husband. When comparing our results to those of another study conducted by Ibrahim and others in Iraq (42.0) of mothers were income monthly (>500,000), (31.2) of mothers were income monthly income (500,000-1,000,000) and (26.8) of mothers were income monthly income more than (1,000,000) [(11)]. This result highlights that (43.2%) showed that pregnant women-owned a home and rented homes (56.8%), and the highest percentage of house rent was due to the highest percentage of homemakers, occupation status of husbands and highest percentage monthly income of pregnant (>500,000) In line with previous studies, the results of a study done by Shorofi in Australia: (49.2) homeowners and (40.8) rental of homes [(14)]. As for the body mass index in this study, the pregnant woman's body mass index reached (18.5-24.9)kg/2m percentage(39.6%)normal weight and (25-29.9) kg/2m percentage (60.4%) table (4.1). The largest percentage was off the overweight reason due to the growth of the fetus and hormonal changes in the body, which led to an increase in the size of the breast and uterus and an increase in the volume of blood and amniotic fluid. A difference between these findings can only be attributable to those studies conducted by Wesołowska in Poland:(43%) for BMI (25-29.5) kg/2m,18% for BMI (25 -29.9) kg/2m and(39%) for BMI (30-39.9) kg/2m [(15)].The current results demonstrated that based on a questionnaire about dietary supplements, the highest percentage of supplement use was according to recommendations(49.2%) by family to use nutritional supplements. According to their experiences and beliefs (40.8),

healthcare professionals were recommended to use. The results of the different findings of a study conducted by Žeželj, S and others in Croatia, the internet (66.1%) was the most common source of information, followed by healthcare professionals (33.2%) [16]. Regarding knowledge about dietary supplements in this study, (1.7973) mean answers for pregnant women were through several questions in the questionnaire, and a percentage (59,89%) had these findings suggest that there is a deficiency in the knowledge of healthy pregnant women about the health benefits of supplements. In contrast, this makes it possible to the results of a similar study in Palestine, (3.33) mean and (56.71%) were pregnant women with moderate knowledge of dietary supplements [17]. From these results, it is clear that knowledge of alternative medicine was moderate among most pregnant (54.25%) knowledge about alternative medicine and the answers meant that 1.6271 women had a fear of using it and considered it unsafe for the mother and fetus during pregnancy and that it had side effects. This knowledge is moderate because most of the samples are illiterate or in primary school, and the cultural and educational level affects their knowledge. However, this result has not previously been described. In Saudi Arabia: Their knowledge was (64%), and Users believe that alternative medicines are safe and without side effects. However, plants and herbal medicines are extremely complex materials. In addition, there is a lack of protocols and suitable methods of evaluating the products. Herbal medicinal products must be regulated to enhance quality, safety, and efficacy [18].

CONCLUSION

Based on the discussion of results and their interpretations, the present study concluded that Most pregnant women aged between 21-30 were illiterate, and their monthly income was less than 500,000. most women's visits were less than 3 visits per trimester of pregnancy because they did not suffer from complications during pregnancy. Pregnant women used supplements and alternative medicine according to the recommendations of the family and the herbalist. the knowledge level about supplements and alternative medicine was moderate, and this knowledge was associated with their attitudes.

Acknowledgments: The authors are thankful to the Ethical Research committee on Mosul Directorate of Health for approved the study.

Ethical consideration: Before data collection, official permission was obtained from the Ministry of Education/ Nineveh Directorate, and Written approval of participants was obtained before the start of data collection.

Conflicts of interest: Nil
Source funding: Self

REFERENCES

1. World Health Organization (WHO. WHO monographs on medicinal plants commonly used in the Newly Independent States (NIS). Libros Digitales-World Health Organization (WHO), 2010.
2. World Health Organization. WHO guidelines on good agricultural and collection practices (GACP) for medicinal plants. World Health Organization, 2003.
3. James, Peter Bai, et al. "Traditional, complementary and alternative medicine use in Sub-Saharan Africa: a systematic review." BMJ global health 3.5 (2018): e000895.
4. Kocyłowski, Rafał, et al. "Assessment of dietary intake and mineral status in pregnant women." Archives of gynecology and obstetrics 297.6 (2018): 1433-1440.
5. Jacinto-Azevedo, Benicio, et al. "Nutritional value and biological properties of Chilean wild and commercial edible mushrooms." Food Chemistry 356 (2021): 129651.
6. Tunçalp, Ö., et al. "Quality of care for pregnant women and newborns—the WHO vision." Bjog 122.8 (2015): 1045.
7. Kamau, Mary, et al. "Effect of community based health education on knowledge and attitude towards iron and folic acid supplementation among pregnant women in Kiambu County, Kenya: A quasi experimental study." PloS one 14.11 (2019): e0224361.
8. Abebe, Engidaw, Getachew Gugsa, and Meselu Ahmed. "Review on major food-borne zoonotic bacterial pathogens." Journal of tropical medicine 2020 (2020).
9. Igbinoba, Angie O., et al. "Women's mass media exposure and maternal health awareness in Ota, Nigeria." Cogent Social Sciences 6.1 (2020): 1766260.
10. Musiana, Hamidah Rahman, Rosmila Tuharea, and Zubair Saing. "Disclosure of Herbal Medicines Use on Mother and Children Health Care in Ternate Island Indonesia." (2021).
11. Thunbo, Mette Østergaard, et al. "Polypharmacy in polymorbid pregnancies and the risk of congenital malformations—A systematic review." Basic & Clinical Pharmacology & Toxicology 130.3 (2022): 394-414.
12. Schetinin, Michael, et al. "Technological and Nutritional Potential of Lentil in the Turkey Cutlets Production." The International Conference on Advances in Emerging Trends and Technologies. Springer, Cham, 2021.
13. Ellamie, Ashgan M., et al. "Dietary supplementation of brown seaweed (Sargassum latifolium) alleviates the environmental heat stress-induced toxicity in male Barki sheep (Ovis aries)." Journal of Thermal Biology 89 (2020): 102561.
14. Zeighami, Maryam, and Somayeh Soltani-Nejad. "Knowledge, attitude, and practice of complementary and alternative medicine: a survey of Iranian nurses." Journal of Research in Nursing 25.4 (2020): 380-388.
15. Wesolowska, Aleksandra, et al. "Implementation of the Reimbursement Cost of Human-Milk-Based Neonatal Therapy in Polish Health Care Service: Practical and Ethical Background." Journal of Human Lactation 36.3 (2020): 426-435.
16. Žeželj, Sandra Pavičić, et al. "Prevalence, knowledge and attitudes concerning dietary supplements among a student population in Croatia." International journal of environmental research and public health 15.6 (2018): 1058.
17. Shraim, Naser Y., et al. "Community pharmacists' knowledge, practices and beliefs about complementary and alternative medicine in Palestine: a cross-sectional study." BMC complementary and Alternative Medicine 17.1 (2017): 1-12.
18. Aljofan, Mohamad, and Suhaib Alkhamaiseh. "Prevalence and factors influencing use of herbal medicines during pregnancy in Hail, Saudi Arabia: a Cross-Sectional Study." Sultan Qaboos University Medical Journal 20.1 (2020): e71.