Evaluation of Pregnancy-related Health Behaviors' Change during Pregnancy for Pregnant Women Attending Abo Ghareeb Primary Health Care Sector

تقويم تغير السوكيات الصحية خلال الحمل للنساء الحوامل المراجعات لقطاع الرعاية الصحية الأولية في أبي غريب

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المستخلص

الأهداف: تهدف الدراسة الى تقويم السلوكيات الصحية المتعلقة بالحمل للنساء الحوامل والتعرف على العلاقة بين السلوكيات الصحية المرتبطة بالحمل والخصائص الديمغرافية-الإجتماعية كعمر المرأة الحامل والمستوى التعليمي والمهنة ومحل الإقامة والدخل الشهري.

منهجية البحث: تم أجراء دراسة وصفية للفترة من ١٤ ديسمبر ٢٠٢٠ إلى ٢٠ يونيو ٢٠٢١. أختيرت عينة غير إحتمالية "متوفرة" مكونة من (١٥٠) إمرأة حامل مراجعات إلى قطاع أبو غريب للرعاية الصحية الأولية. تكونت أداة الدراسة من (٢٩) فقرة حيث تم تقسيمها إلى جزئين: الجزء الأول عبارة عن بيانات ديموغرافية-إجتماعية للحوامل وتتكون من العمر والمستوى التعليمي والمهنة ومحل الإقامة والدخل الشهري والجزء الثاني عبارة عن فقرات السلوك الصحي أثناء الحمل والذي يتكون من (٢٩) سؤال والسؤال رقم تسعة وعشرون يتكون من (١٧) سلوكية من السلوكيات التي تم تغيرها أثناء الحمل. تم تحديد صدق المحتوى للإستبانة من خلال مجموعة من الخبراء والإتساق الداخلي لثبات الإستبانة من خلال حساب معامل الإرتباط كرونباخ ألفا. تم جمع النيانات من خلال إستخدام الإستبانة وتقنية المقابلة الشخصية وتحليل البيانات بإستخدام الأساليب الإحصائية الوصفية والإستنتاجية.

النتائج: بينت نتائج الدراسة إلى أن (٣٠٪) من الخاضعين للدراسة تتراوح أعمارهن بين (٢٠-٢٤) سنة و(٨٨٪) ربات بيوت و(٢٨.٧٪) خريجات المرحلة الابتدائية و(٦٠.٧٪) من سكان الحضر و(٥٠٪) دخلهن الشهري هو (٣٠٠.٠٠٠-٦٠٠.٠٠٠) دينار عراقي. كذلك أشارت نتائج الدراسة إلى وجود إرتباط عالي الدلالة بين السلوكيات الصحية لعينة الدراسة ومستويات تعليمهن ودخلهن الشهري والمنطقة السكنية بقيمة إحتمالية أقل من (٠.٠١). بينما لا يوجد أي إرتباط بالصفات الديموغرافية الأخرى كالعمر والمهنة بقيمة إحتمالية خطأ تزيد عن (٠.٠٥).

التوصيات: أوصت الدراسة إلى ضرورة طباعة وتوزيع كتيبات تتضمن جميع السلوكيات الصحية للمرأة الحامل من قبل وزارة الصحة والبيئة العراقية.

الكلمات المفتاحية: تقويم، تغير السلوكيات الصحية، الحمل، النساء الحوامل

Abstract

Objective(s): The study aims at evaluating pregnancy-related health behaviors for pregnant women, and to identify the association between pregnancy-related health behaviors and their demographic characteristics of pregnant woman's age, education, employment, residential area and monthly income.

Methodology: A descriptive study is carried out for the period from December 14th, 2020 to June 20th, 2021. This study was conducted through a non-probability (convenience) sample of 150 pregnant women attending, Abo Ghareeb primary health care sector in Abo Ghareeb spend. The sample has been collected by using the instrument to gather data and accomplish the study's objectives. A questionnaire is composed of (29) items and it is divided into two parts. The first part is socio-demographic data of pregnant women which consists of (five) items including age, level of education, occupation, residential area, and monthly income and the second part is items of health behaviors during pregnancy which consists of (29) questions

and question number twenty-nine consist of (17) items of changed behaviors. The content validity of the instrument has been determined by panel of experts and the internal consistency reliability is determined by the computation of Cronbach alpha correlation coefficient. The data are collected throughout the use of the questionnaire and the interview technique and analyzed by applying descriptive and inferential statistical data analysis approaches.

Results: Results show that (30%) of the study subjects are (20-24) years old, (88%) housewives, (28.7%) are primary school graduated, 60.7% are rural residents, and (50%) of their monthly income is (300, 000-600,000) ID. The Study results show that there is a high-significant association between the study sample's healthy behaviors and their education, monthly income, and residential area at a p-value less than (0.01). While other demographic characteristics of age and occupation has non-significant association with a p-value of higher than (0.05).

Recommendations: The study recommends that the Iraqi Ministry of Health should print and distribute booklets containing all the health behaviors of pregnant women.

Keywords: Evaluation, Health Behaviors' Change, Pregnancy, Pregnant Women

Introduction

Pregnant women's healthy behaviors have an effect on the outcome of their pregnancy. Pregnant women who are overweight, obese or gain weight during pregnancy are more likely to have adverse birth effects, such as pregnancy, hypertension, preeclampsia, high birth weight, and emergency cesarean birth [(1)]. Pregnancy health behaviors may have a major effect on maternal and child health. During pregnancy, many women engage in health-risky behaviors [(2)]. World Health Organization reports that the pregnancy may be an optimal time for behavior change among pregnant women with a high prevalence of overweight and obesity [(3)]. It is estimated that nearly one-third of a million women worldwide die per year as a result of pregnancy-related circumstances, with 99 percent of these deaths occurring in developing countries and about three–quarters of them considered avoidable[(4)].

Evidence has accumulated over the last decade that women's behavior during pregnancy may have an essential impact on the health of their infants. Many pregnant mothers do not follow physical activity and dietary standards. Highlight the effect of habit on behavior and propose that automaticity interventions may be effective in improving health habits during pregnancy [(5)].

Improving women's health and maintaining healthy behaviors before or during pregnancy is particularly important until nearly half of pregnancies (49%) are unintended and correlated with insufficient information about the risk factors that place them at constant risk [(6)].

Meanwhile, adopting health-related behaviors and healthy lifestyle are considered as the factors that contribute to

disease prevention and weight maintenance. In addition, it is a motivator for maintaining proper behaviors [7].

Finally and based on the study point of view, pregnant women's health behaviors have a significant impact on perinatal outcomes. Also, Iraq face serious maternal and child health conditions and improved reproductive health services are urgently needed.

Methodology:

Study Design: A Descriptive study which is carried out to evaluate pregnancy-related health behaviors change for pregnant women attending Abo Ghareeb Primary Health Care Sector in Abo Ghareeb Zone.

Study Sample: A non-probability "convenient" sample (150) pregnant woman attending Abo Ghareeb Primary Health Care Sector in Abo Ghareeb Zone.

Ethical Considerations: Scientific Research Ethical Committee at the University of Baghdad, College of Nursing has approved the study to be conducted. All women who have participated in the study have signed consent form for the human subjects' rights.

The Study Instrument: For the purpose of the current study, A questionnaire is adopted [8]. The study instrument consists of two parts and includes:

Part (I): Socio-Demographic Characteristics:

This part is concerned with the gathering of demographic data from pregnant women and consists of (five) items including age, level of education, occupation, residential area and monthly income.

Part II: Items health behaviors during pregnancy: It is consisted of one domain that contains (29) questions and question number twenty nine consist of (17) changed behaviors. Any of the (29) items is measured on a 5-point Likert scale.

Validity of the questionnaire: Content validity of the questionnaire is determined through panel of (11) expert.

Reliability of the Questionnaire: Internal consistency reliability is determined through using a Cronbach's Alpha coefficient method. The result of the reliability shows that the Cronbach's Alpha coefficient is (r = 0.77) which is considered statistically acceptable.

Data collection: Data are collected through the use of the study questionnaire and the application of interview technique.

Data Analysis: Data are analyzed through the use of descriptive and inferential statistical data analysis approach and through the use of Statistical Package for Social Sciences (SPSS) version 20 and Microsoft Excel 2010.

Results

Table (1): Socio-demographic Characteristics of the Study Sample

Demographic Data	Rating and Intervals	Frequency	Percent
Age (years)	15-19	32	21.3
	20 – 24	45	30.0
	25 – 29	43	28.7
	30 – 34	23	15.3
	35 – 39	5	3.3
	40 – 44	2	1.3
	Total	150	100.0
Mean (Standard Deviation) = 24.45 (5.432)			
Occupation	Employee	12	8.0
	Housewife	132	88.0
	Student	3	2.0
	Free worker	3	2.0
	Total	150	100.0
Levels of Education	Doesn't read and write	12	8.0
	read and write	32	21.3
	Primary school graduated	43	28.7
	Intermediate school graduated	19	12.7
	Secondary school graduated	19	12.7
	Institute	8	5.3
	Bachelor	17	11.3
	Total	150	100.0
Residence	Urban	59	39.3
	Rural	91	60.7
	Total	150	100.0
Monthly Income	Less than 300.000 ID	35	23.3
	300,000-600,000 ID	75	50.0
	601,000-900,000 ID	36	24.0
	901,000-1,200,000 ID	2	1.3
	1,201,000-1,500,000 ID	2	1.3
	Total	150	100.0

This table describes the study sample demographic characteristics. The study results indicate that (30%) of the study subjects are (20-24) years old, (88%) housewife, (28.7%) are primary school graduates, (60.7%) are rural residents, and (50%) their monthly income is (300, 000-600,000) ID.

Table (2):Evaluation of Pregnancy-related Health Behaviors' Change duringPregnancy

Changed Behaviors	Responses	Frequency	Percent
1. Getting at least 8 hours of sleep	NO	5	3.3
	Yes	145	96.7
	Total	150	100.0
2. Exercising at least 3 times a week	NO	77	51.3
	Yes	73	48.7
	Total	150	100.0
3. Wearing your seatbelt	NO	129	86.0
	Yes	21	14.0
	Total	150	100.0
4. Drinking less than 2 caffeinated	NO	48	32.0

beverages a day	Yes	102	68.0
	Total	150	100.0
5. Refraining from use of other illegal drugs	NO	49	32.7
	Yes	101	67.3
	Total	150	100.0
6. Refraining from use of unrecompensed herbs	NO	61	40.7
	Yes	89	59.3
	Total	150	100.0
7. Reading food labels	NO	68	45.3
	Yes	82	54.7
	Total	150	100.0
8. Not douching	NO	63	42.0
	Yes	87	58.0
	Total	150	100.0
9. Not taking excessively hot baths	NO	57	38.0
	Yes	93	62.0
	Total	150	100.0
10. Avoiding exposure to dangerous substances	NO	55	36.7
	Yes	95	63.3
	Total	150	100.0
11. Taking recommended vitamins	NO	35	23.3
	Yes	115	76.7
	Total	150	100.0
12. Consuming enough calcium	NO	51	34.0
	Yes	99	66.0
	Total	150	100.0
13. Eating at least five fruit or vegetables each day	NO	33	22.0
	Yes	117	78.0
	Total	150	100.0
14. Eating enough fiber each day	NO	41	27.3
	Yes	109	72.7
	Total	150	100.0
15. Not smoking cigarettes	NO	99	66.0
	Yes	51	34.0
	Total	150	100.0
16. Receiving needed dental care	NO	104	69.3
	Yes	46	30.7
	Total	150	100.0
17. Relaxation \relaxing activities	NO	75	50.0
	Yes	75	50.0
	Total	150	100.0

This table indicates that the study sample were changed all the study behaviors presented in the above table. While the exercise for three times a week, set the safety belts, smoking, dental care, and relaxation are the behaviors that the study sample has not changed.

Table (3): Association between the Study Sample Healthy Behaviors and their Demographic Characteristics

Demographic data	Rating and intervals	Overall Evaluation			Chi-square Value	d.f.	p-value
		Fair	Good	Poor			
Age (years)	15-19	23	9	0	6.971	10	0.728 NS
	20 – 24	33	12	0			
	25 – 29	29	14	0			
	30 – 34	17	5	1			
	35 – 39	4	1	0			
	40 – 44	1	1	0			
Occupation	Employee	5	7	0	8.724	6	0.190 NS
	Housewife	99	32	1			
	Student	1	2	0			
	Free worker	2	1	0			
Education	Does not read and write	10	1	1	37.063	12	0.0001 HS
	read and write	29	3	0			
	Primary school graduated	29	14	0			
	Intermediate school graduated	15	4	0			
	Secondary school graduated	15	4	0			
	Institute	2	6	0			
	Bachelor	7	10	0			
Residential Area	Urban	33	26	0	12.849	2	0.002 HS
	Rural	74	16	1			
Monthly Income	Less than 300.000 ID	23	11	1	22.645	8	0.004 HS
	300,000-600,000 ID	63	12	0			
	601,000-900,000 ID	21	15	0			
	901,000-1,200,000 ID	0	2	0			
	1,201,000-1,500,000 ID	0	2	0			

df: Degree of freedom, P-value: Probability value, HS: Highly Significant

Results, out of this table, show that there is highly significant association between the study sample pregnancy-related health behaviors and their education, monthly income, and residential area at p-value (≤ 0.01). While, there is a non-significant association with other demographics of age and occupation at p-value (≤ 0.05).

Discussion

Discussion of Pregnant Women's Demographic Characteristics:

Age:

The study results indicate that one third of the study subjects are (20-24) years old.

In a study which is conducted in Ethiopia to demonstrate that the participants were all primary school graduates. The use of prenatal care services was considerably influenced by the pregnant mother's age (20-24) [(9)].

Education: The present study shows that less than one third of the study sample were primary school graduated. The current study agrees with a study conducted in Iraq from 100 pregnant women, which found that the highest level of education of study sample were primary graduate [(10)].

This result corresponds to a study which is conducted in Hila City that reports that out of (150) participant, the highest percentage of pregnant women is accounted for a primary school level (32 %) [(11)].

Occupation: According to the findings of this study, housewives form the majority of thetudy sample, and they are accounted for (88%) of the overall sample. This is consistent with a study which is conducted in Iraq that finds that almost pregnant mothers (66%) are housewives [(12)].

Residential Area: The results of the study have presented that more than half of the pregnant women are estimated as (60.7%) of the study sample, are living in rural resident. These results are consistent with the findings of a study which reports that (62%) of pregnant women are living in rural areas [(13)].

Monthly income: The findings reveal that half of the study sample have a monthly income of (300,000-600,000) ID.

Discussion Evaluation of the Study Sample Behaviors that changed during Pregnancy:

The study results indicate that the study sample were changed all the study behaviors while, the "exercise for three times a week, set the safety belts, smoking, dental care, and relaxation" are the behaviors that the study sample does not changed.

A study also displays that more than (49%) of the pregnant women changes behavior in their daily diet, physical activity, smoking behaviors, vitamin intake, and alcohol consumption [(14)].

Discussion of the Association between the Pregnancy-related Healthy Behaviors and Women's Demographic Characteristics:

The study result indicates that there is high-significant association between the study sample pregnancy-related health behaviors and their education, monthly income, and residential area at p-value (≤ 0.01). While, there is a non-significant association with another demographic characteristics of age and occupation at p-value (≥ 0.05).

The findings of the study are supported by a study which is done in Indonesia. The major finding of this research is that women's education, family monthly income, insurance status, and access to health facilities, as well as geographic location, general health, pregnancy goals, and community level socioeconomic status, are all found to be strongly correlated with various outcome behaviors [(15)].

Also, the results of the present study are supported by a study that reports that there is significant association between level of education and monthly income of pregnant women and their behaviors [(16)].

While, the results of the current study mention that there is a non-significant association with other demographic characteristics of age and occupation at a p-value (≥ 0.05). A study explores that most of the study sample living in a rural area and pregnant women in these villages rely on the experiences of mothers and aunts during pregnancy. Whereas, the result of the current study are inconsistent with a study states that there is a non-significant association among socio-demographic characteristics of pregnant women of age, occupation, education, and income and their health behaviors [(17)].

Recommendation

1. The study recommends that the Iraqi Ministry of Health and Environment should publish and distribute booklets containing all the pregnancy-related health behaviors.
2. Development of health promotion services by health care providers to enhance the mother's right healthy behaviors and include information on other unhealthy ones such as caffeine use and the use of un-recommended medications.
3. Encouraging pregnant women to search through the electronic sources for the best health behaviors during pregnancy.
4. Encouraging women to visit the primary health care centers regularly according to follow-up schedule.

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