

EVALUATING ADHERENCE TO LIFESTYLE AMONG BREASTFEEDING WOMEN IN BABIL PROVINCE, IRAQ**Mahmoud Abbas Shabib, M.Sc**

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Abstract: Background: Lactating mothers are more likely to have nutritional deficiencies and changes in lifestyle during breastfeeding because of altered eating habits, physiological changes, and a variety of sociodemographic variables. Objective: The study aims to assess the impact of lifestyle factors on lactating women and to determine the relationship between socio-demographic variables and the overall lifestyle score. Materials and methods: This study is a descriptive cross-sectional study conducted on 348 mothers selected randomly to evaluate the impact of lifestyle factors on lactating mothers and their infants lower six months during 2023 in primary health care centers in Babylon governorate. The study period was conducted from August 1st to December 1st, 2023. Results: The results of this research indicate that 86% (n=301) of participants had poor lifestyle scores. 14% (n=47) of them have a good lifestyle score, which is the lowest number. Also, these results reveal that urban residents had much higher lifestyle scores than rural. Higher education levels correlated with higher lifestyle scores. Read-and-white students had the fewest high scores compared to high educational level (P. value <0.05). Conclusion: The study indicated that the majority of breastfeeding mothers have poor levels of adherence to a healthy lifestyle. Targeted educational initiatives should educate and assist nursing moms, especially those with lesser education, on the significance of a healthy lifestyle during lactation.

Keywords: lifestyle, dietary, smoking, physical activity



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Introduction

The world health organization highlights poor diet, insufficient physical activity, alcohol, and tobacco use as primary modifiable factors causing chronic non-communicable illnesses, particularly in women and their children, especially during pregnancy and lactation[1]. As a result, breastfeeding mothers receive little information, follow-up, and nutritional monitoring. This could thus raise the mother's and the breastmilk's risk of nutritional deficiencies, which could result in the newborn's nutritional inadequacies. During this time, recommendations could be helpful to guarantee the best possible health for mothers and babies [2].

Pregnancy-related physical activity may have links to longer-term weight loss after giving birth, lowered depression rates, higher life satisfaction, and extended lactation[3], [4]. The benefits of physical activity and breastfeeding on their own for mothers and their babies have been thoroughly investigated, but there hasn't been much research on their relationship [3]. Smoking during breastfeeding has serious negative effects, including altering the content of breast milk, impairing infants' ability to regularly suckle, and lowering the breast milk's ability to fight against numerous infections. While over 80% of tobacco users worldwide are found in low- and middle-income countries (LMICs), population-based data about the prevalence of tobacco use among breastfeeding women in these countries is insufficient [5].

Methods

Study Period

Data collection commenced in August and finished in December 2023.

Study Design

A descriptive cross-sectional study was conducted

Study design and setting

This study is a descriptive cross-sectional study that conducted on lactating mothers to assess the impact of lifestyle factors on lactating mothers whose their children less than six months during 2023 in primary health care centers in Babylon governorate. The study period was conducted from August 1st to December 1st, 2023.

Sampling techniques:

A total of 348 lactating mothers who had children less than 6 months where randomly selected from primary health care centers (First Hilla Sector, Second Hilla Sector, AI-Mahawil Sector, AL-Musayyab Sector, and AL-Hashimiya Sector) in Babylon governorate. Researchers simply add respondents who are available to participate in the study until they have reached the necessary number of participants in the sample.

Selection criteria:

Inclusion criteria:

- 1- mothers who are breastfeeding and their infants less than six months
- 2- mothers with exclusive breastfeeding or mix feeding for their infants.

Exclusion criteria:

- 1- lactating mothers who your infants over six months of age.
- 2- mothers whose their infants feed artificial feeding only.
- 3- mothers who refuse to participate.
- 4- Mothers with incomplete information.

Data collection:

After acquiring an official agreement. The data was collected by direct (face to face interview) with the participants. After explaining the objectives of the study and assuring them that the data taken will be reserved confidentially. Regarding data related to evaluating the impact of lifestyle on the breastfeeding mother, it was collected using a designed questionnaire by the researcher, and questions were asked using a clear Arabic language. Each interview took approximately 15-20 minutes.

Variables and measurement:

- Dependent variable: adherence to recommended lifestyle.

□ Independent variables: sociodemographic variables— age, education level, occupation, socio-economic status.

Scoring criteria for the lifestyle factors, the scale of the two levels was rated on the 2 points (Likert respondent scale) it was scored as a scoring of agreed about by assigning a score of (1) for “positive answer”, and (zero) for “negative answer”.

The total evaluation score for lifestyle factors was 8 factors. They had a healthy lifestyle score ≥ 5 considered good and otherwise considered unhealthy or poor according to Xiang et al., (2023) [6].

Statistical analysis:

The data through the questionnaire, the information for each question was transferred to code sheets, the data was entered into the personal computer, and then the data was analyzed by the statistical package available from SPSS-27. Data were showed in simple measures of frequency, percentage. The significance of the difference for different percentages (qualitative data) was tested using the Pearson Chi-square test. Statistical significance was taken into account when the P-value was equal to or less than 0.05.

Ethical Consideration

prior the study was conducted and started data collecting, approval was obtained from the ethics research committee at the Southern Technical University/Collage of Health and Medical Technology, Basrah.

In addition, formal permission to enter the primary health care centers in the Babil Governorate was obtained from of the Babil Health Directorate of the Training and Human Development Centre. In addition, verbal consent was acquired from the lactating mothers, indicating their voluntary participation after a detailed explanation of the objectives of the study.

Result and Discussion

1. Socio-demographic characteristics of the mothers lactating

In [figure 1](#), the results of this study indicate that the highest percentage 117 (33.6%) of mothers fall with age group (21-25 years), followed by 99 (28.4%) 26-30 years, 72 (20.7%) ≤ 20 years, 42 (12.1%) 31-35 years, 12 (3.4%) 36-40 years, and 6 (1.7%) of them fall with age group >40 years. In [figure 2](#), the results of this study reveal that the highest percentage 125 (35.9%) of lactating mothers have intermediate educational level, followed by 101 (29.0%) read and write, 88 (25.3%) college and higher, and 34 (9.8%) of them have secondary educational level. In [figure 3](#), the current study demonstrates that the highest percentage of participants 197 (57%) were the socio-economic status moderate. while the lowest percentage, 151(43%) of them were the socio-economic status high.

2.Lifestyle factors for lactating women

In [table 1](#), the current study report that only 40 (11.5%) of the lactating women experience regular physical exercise. Regarding sleep and rest, the results show that 326 (93.7%) got sufficient sleep and rest. Concerning manage stress, the study results reveals that 347 (99.7%) of them manage stress effectively. As regards smoking, The present study found that 314 (90.2%) of lactating mothers avoid smoking or exposure to second hand smoke. Concerning alcohol, the study reveals that all participants do not consume alcohol. Related proper hygiene practices, the results report that all lactating mothers maintain proper hygiene practices. As regards handling and storage of breast milk, the current study found that 347 (99.7%) of them practice safe handling and storage of breast milk. Concerning relaxation techniques, the results of study show that only 46 (13.2%) of lactating mothers practice relaxation techniques or self-care activities.

In [figure 4](#), the present study demonstrates that the highest percentage of participants 301(86%)

have a poor lifestyle score. while the lowest percentage, 47(14%) of them have a good lifestyle score.

In [table 2](#), the results of this study indicate that there is no significant relationship between age groups and total lifestyle score (P value >0.05). While Higher education levels correlated with higher lifestyle scores. Read-and-white students had the fewest high scores compared to high educational level. Socio-economic status showed a gradient effect, with higher scores indicating greater affluence, as shown by the higher proportions of high scores in moderate and high socio-economic status.

DISCUSSION:

The study found that the majority of woman are aged 21-25, followed by aged 26-30. These results agreed with the study findings conducted by Ogechi, (2014)[7] which found that 21.3% of the lactating woman belonging to age groups (16-25 years). Also, another study in Zambia by Kaliwile et al., (2019)[8] which reported that 41.5% of women fall within age groups (20-29years). Mothers are concentrated in younger age groups, notably 21-25 and 26-30, which may affect maternal health interventions and healthcare resource allocation.

In this study, the highest percentage (35.9%) of participants have intermediate educational level. This result agreed with study findings conducted by Khodabandeh et al., (2017)[9] which found that 32.4% of lactating woman have intermediate educational level. This consistency improves the results' dependability and emphasizes the need for education in understanding breastfeeding women's actions and demands. Participants' intermediate educational attainment may indicate socio-economic status or resource availability.

In the current study, a majority of participants were of moderate socioeconomic class, compared to high socioeconomic status. This shows a large socioeconomic discrepancy in the sample group. This distribution may reveal complex processes including resource availability, education, and quality of life. This highlights the need for specific interventions to address the obstacles encountered by low-income people and provide fair access to opportunities and resources for all.

In this study, there is low physical activity during lactating women. This result is in agreement with the recent findings done by Cabrera-Domínguez et al., (2022) [10], which found that only 8.0% of lactating women experience physical activity. This tendency in low physical activity may be caused by exhaustion, time restrictions, childcare, and motivation. Lactation-related hormonal changes and postpartum recovery may also discourage frequent exercise.

A current study reveals that most participants have sufficient sleep. This study is in agreement with other study conducted in Malaysia by Salarzadeh Jenatabadi et al., (2020)[11], which found that most lactating women in urban area have sufficient sleep. Most research participants have enough sleep, which may have several causes. It may indicate a rise in sleep improvement knowledge and improved sleep habits. Social trends toward mental and physical health may have fostered more sleep.

In this study, the highest percentage (90.2%) of lactating mothers are not smoking and avoid exposure to second hand smoke. These results are consistent with previous study conducted by Kalita-Kurzyńska et al., (2021)[12], which found that most of participants not smoking during lactation period.

The majority of participants have a poor lifestyle score (86%), while just 47 (14%) have a high lifestyle score, highlighting the prevalence of suboptimal lifestyle choices in the examined community. These results agreed with the study findings done by Gila-Díaz, et al., (2021)[13]. This striking discrepancy offers intervention areas and emphasizes the need for public health programs to promote healthy habits and behaviours.

The total lifestyle score did not correlate with age groups ($P >0.05$). Results agree with Osman et al., (2020)[14] that age and lifestyle are unrelated ($P=0.158$). Generational lifestyle

changes may offset age's influence on lifestyle scores. Financial, cultural, and personal disparities between age groups may trump lifestyle. Due to social trends toward a more diversified and inclusive lifestyle, there may be no age-related lifestyle score pattern.

The study found that urbanites had higher lifestyle scores than ruralises. Recent Salarzadehi et al., (2020) study found that dwellers had higher lifestyle scores than rural (P < 0.05).

This study found that lactating mothers with greater education and socioeconomic status had better lifestyle scores. This study supports Gila-Díaz et al., (2021) conclusions that breastfeeding women with low socioeconomic and educational levels should be targeted for nutritional treatments to improve their adherence to the Healthy Food Pyramid and lifestyle. For many reasons, lactating women with higher education and socioeconomic level had better lifestyle scores. First, higher-educated people have more nutrition and healthcare information, allowing them to make better lifestyle and food choices during breastfeeding. Higher socioeconomic level frequently means greater access to nutritional food, healthcare, and support networks, which are essential for breastfeeding health. Higher-educated and wealthier people may have more time and resources to emphasize self-care and wellness. Overall, education, socioeconomic level, and resources empower lactating women to live better lives.

Table (1): The distribution of the participants according to lifestyle factors

Lifestyle factors	Yes		No	
	No.	%	No.	%
Do you engage in regular physical exercise?	40	11.5	308	88.5
Do you get sufficient sleep and rest?	326	93.7	22	6.3
Do you manage stress effectively?	347	99.7	1	.3
Do you avoid smoking or exposure to second-hand smoke?	314	90.2	34	9.8
Do you consume alcohol?	0	.0	348	100.0
Do you maintain proper hygiene practices?	348	100.0	0	.0
Do you practice safe handling and storage of breast milk?	347	99.7	1	.3
Do you practice relaxation techniques or self-care activities?	46	13.2	302	86.8

Table (2): The relationship between demographic characteristics and total lifestyle score

		Total Lifestyle Score				P. value
		Poor		Good		
		No.	%	No.	%	
Age groups	<= 20 years	63	87.5	9	12.5	0.349
	21-25 years	99	84.6	18	15.4	

	26-30 years	89	89 .9	10	10.1	
	31-35 years	33	78 .6	9	21.4	
	36-40 years	12	10 0. 0	0	.0	
	> 40 years	5	83 .3	1	16.7	
Educational level	Read and write	96	95 .0	5	5.0	<0.001
	Intermediate	11 4	91 .2	11	8.8	
	Secondary	29	85 .3	5	14.7	
	College and higher	62	70 .5	26	29.5	
Socio-economic status	Low (<90 score)	-	-	-	-	0.002
	Moderate (90-120 scores)	18 0	91 .4	17	8.6	
	High (>120 score)	12 1	80 .1	30	19.9	

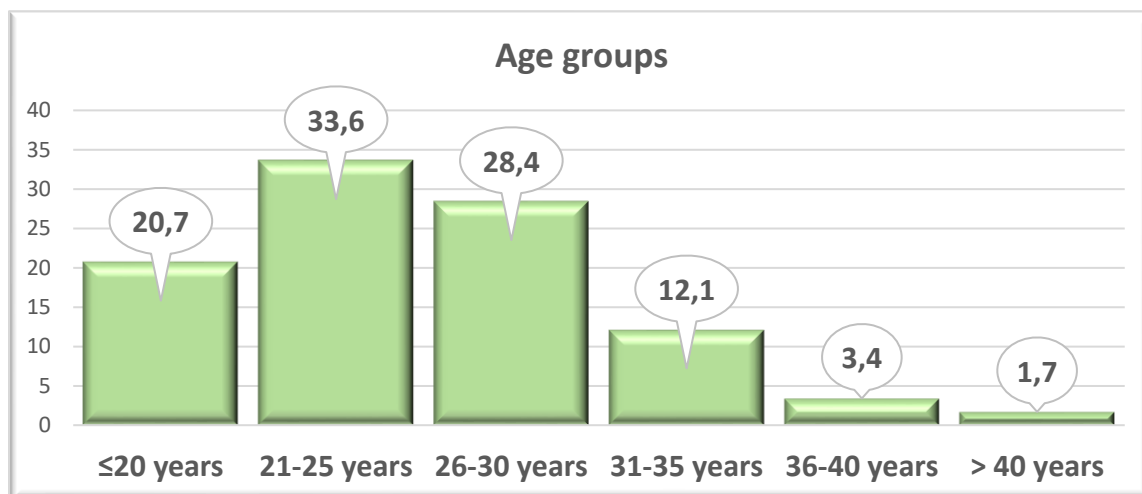


Figure (1): Illustrate distribution of participants according to age groups

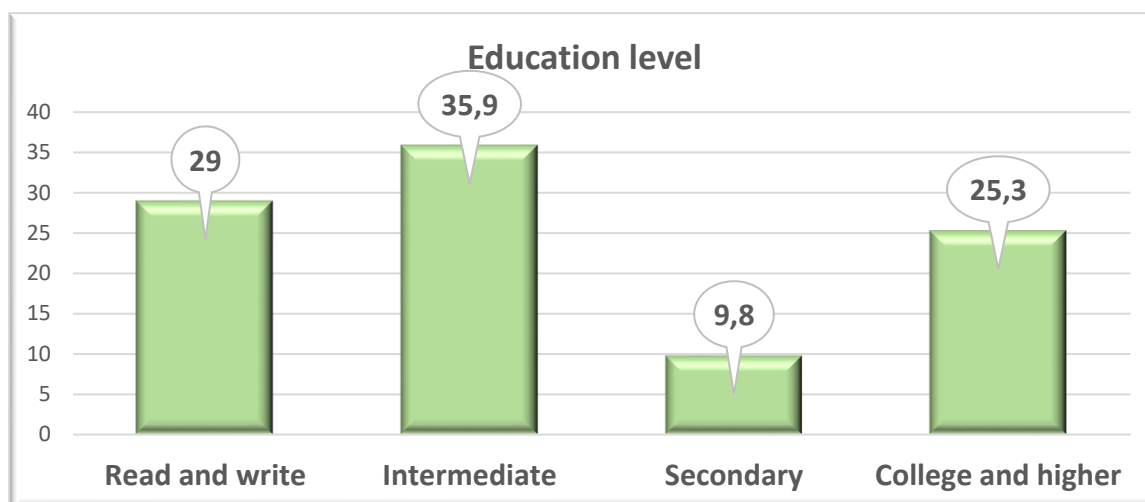


Figure (2): Illustrate distribution of participants according to educational level

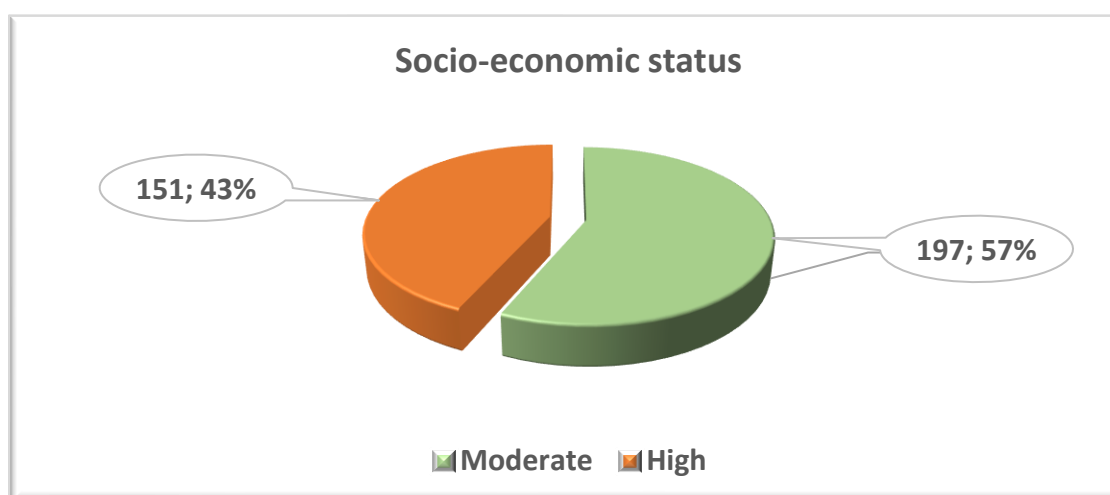


Figure (3): Illustrate distribution of participants according to socio-economic status

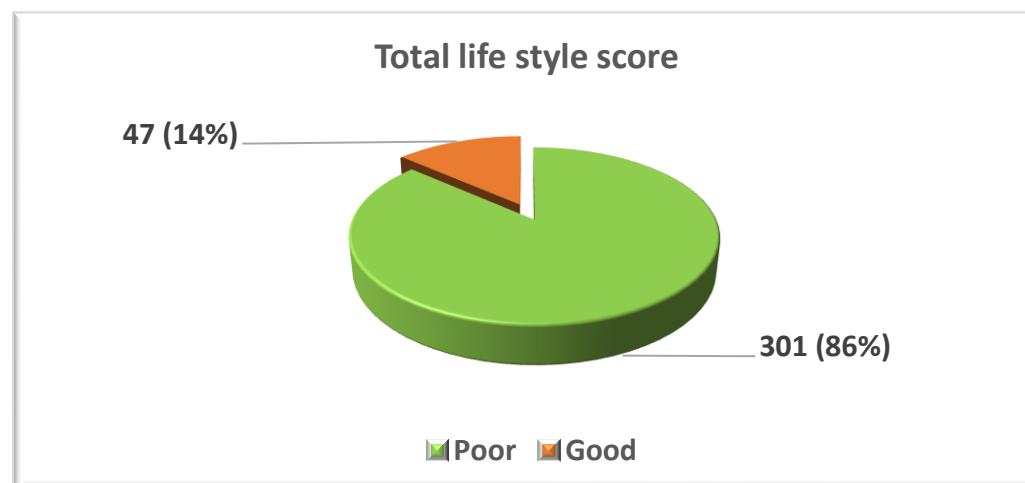


Figure (4): Pie chart illustrate the total lifestyle score of lactating women

Conclusion

The study indicated that the majority of breastfeeding mothers have poor levels of adherence to a healthy lifestyle. In addition, the results also indicated that a high level of education and socioeconomic level enhanced adherence to a healthy lifestyle

Recommendations

Targeted educational initiatives should educate and assist lactating mothers, especially those with lesser education, on the significance of a healthy lifestyle during lactation. These programs should emphasize practical ways to incorporate healthy eating, exercise, and stress management into daily life.

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