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Promoting health in the Babylon Governorate: public awareness regarding a healthier lifestyle

Abeer T. Watife[1,*], Noor Anwer Abdulameer[1], Fatima Adnan Alzubaidi[1], Hajir Karim Abdul-Husseein[1], Hiba F. Al-Shuaibi[1], Fatima M. Al Jubouri[1], Hasanain K. Hasan Owadh[2]

[1]Department of Clinical Pharmacy, College of Pharmacy, University of Babylon, Hillah, Iraq
[2]College of Pharmacy, Al-Mustaqbal University, Hillah, Iraq.

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ABSTRACT

This study explores public awareness of healthy lifestyle practices in the Babylon Governorate (Iraq), with a particular focus on Hillah city and its surrounding districts. The research investigates perceptions and engagement in behaviours that promote well-being and mitigate the risk of chronic disease. Data were collected from 391 participants between December 23, 2022, and February 9, 2023. Socio-demographic variation was minimal, except in relation to marital status, age, body mass index (BMI), family size, and occupation. Notably, female participants demonstrated significantly greater familiarity with the concept of the food pyramid compared to their male counterparts (p<0.05). While many respondents reported adherence to healthy habits – such as adequate sleep, stress management, hydration, and general nutritional awareness – only a small proportion engaged in regular physical activity or consistently applied food pyramid principles to their dietary choices. This discrepancy suggests a gap between nutritional knowledge and actual dietary behavior. Overall, awareness of healthy living did not differ significantly between urban and rural populations within the Babylon Governorate.

*** CORRESPONDING AUTHOR:**
Abeer T. Watife, Department of Clinical Pharmacy, College of Pharmacy, University of Babylon, Hillah, Iraq; e-mail: abeer.tariq@uobabylon.edu.iq

1. Introduction

Fostering well-being requires the preservation of physical and mental health, the promotion of wellness, and the alleviation of stress. Numerous organizations advocate for the adoption of health-promoting behaviours, emphasizing the importance of balanced nutrition, regular physical activity, weight management, and stress reduction. Wellness is a continuous pursuit, centered on a varied diet that incor-

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Table 1. Sociodemographic characteristics, lifestyle behaviours, and health status of the study's participants (Hillah city center: N=254; Babil Province districts: N=137; total: N=391).

Variable	**Categories**	**Hillah city center** (N (%))	**Districts** (N (%))	***p*-value**
Gender	male	71 (28.0%)	42 (30.7%)	0.574
	female	183 (72.0%)	95 (69.3%)	
Age	15–19 years	27 (10.6%)	10 (7.3%)	0.015
	20–39 years	201 (79.1%)	124 (90.5%)	
	40–59 years	21 (8.3%)	3 (2.2%)	
	60–79 years	5 (2%)	0 (0%)	
Body mass index (BMI)	underweight (<18.5)	12 (4.7%)	6 (4.4%)	0.017
	normal weight (18.5–24.9)	103 (40.6%)	67 (48.9%)	
	overweight (25–29.9)	80 (31.5%)	50 (36.5%)	
	obesity (30–39.9)	59 (23.2%)	14 (10.2%)	
Marital status	single	173 (68.1%)	114 (83.2%)	0.001
	married	75 (29.5%)	21 (15.3%)	
	separated / divorced	6 (2.4%)	0 (0%)	
	widow(er)	0 (0%)	2 (1.5%)	
Smoking	1–10 cigarettes daily	10 (3.9%)	8 (5.8%)	0.289
	11–20 cigarettes daily	5 (2.0%)	0 (0.0%)	
	>20 cigarettes daily	5 (2.0%)	4 (2.9%)	
	no smoking	234 (92.1%)	125 (91.2%)	
Fruit consumed	daily	86 (33.9%)	41 (29.9%)	0.676
	<3 times a week	68 (26.8%)	39 (28.5%)	
	< 3 times a week	82 (32.3%)	50 (36.5%)	
	never	18 (7.1%)	7 (5.1%)	
Do you drink 8 cups of water daily?	yes	118 (46.5%)	52 (38.0%)	0.106
	no	136 (53.5%)	85 (62.0%)	
Do you sleep 8 h daily?	yes	135 (53.1%)	78 (56.9%)	0.473
	no	119 (46.9%)	59 (43.1%)	
Regular exercise	yes	74 (29.1%)	34 (24.8%)	0.362
	no	180 (70.9%)	103 (75.2%)	

porates all essential food groups without imposing rigid caloric restrictions[1].

Global campaigns have long sought to advance public awareness of the benefits associated with a health-conscious lifestyle. Despite these extensive efforts, some individuals remain resistant to change and persist in unhealthy behaviours. Although relinquishing familiar dietary and social habits may pose challenges, it is achievable. A range of strategies exists to support individuals in transitioning toward healthier living. Foundational steps include recognizing the importance of prioritizing health, regulating dietary intake, engaging in consistent physical activity, and managing stress effectively[1].

Maintaining a nutritionally balanced diet – comprising meats, dairy products, fruits, and vegetables – is essential for sustaining optimal health. Adopting a lifestyle rooted in health-conscious choices markedly reduces the risk of serious medical conditions and premature mortality. While not all diseases are preventable, a substantial proportion of deaths, particularly those linked to cardiovascular disease and

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pulmonary malignancies, can be avoided. Scientific evidence has identified behaviours such as tobacco use and poor dietary habits as major contributors to chronic illness and early death. Health encompasses more than the absence of disease; it includes physical, psychological, and social well-being. By cultivating healthy habits, individuals not only enhance their own health but also serve as positive role models for their families, especially children. This guide seeks to assist readers in transforming their habits, improving their health outcomes, and extending their lifespan[2,3]. Accordingly, the present study aims to assess public awareness of healthy lifestyle practices among residents of Babylon Governorate (Babil Province), including the Hillah city center and its surrounding districts and sub-districts.

2. Methodology

This cross-sectional study was conducted between December 23, 2022, and February 9, 2023. A total of 391 participants from Hillah city and adjacent areas in Babil Province voluntarily completed a structured questionnaire and provided informed consent. The instrument, previously validated for use among Iraqi populations, was disseminated via social media using a Google Form. Responses were compiled into an online spreadsheet for analysis. In order to ensure linguistic consistency and cultural relevance, the survey was translated into Arabic.

The questionnaire captured data on lifestyle behaviours, health practices, and demographic characteristics. Collected sociodemographic variables included gender, age, marital status, occupation, education level, household size, and income. Physical attributes such as weight and height were recorded to calculate body mass index (BMI), defined as weight (in kilograms) divided by height (in meters squared). BMI categories were classified as follows: normal weight ($18.5 \leq BMI < 24.9$), overweight ($25 \leq BMI < 29.9$), and obese (BMI: 30–39.9)[4]. Additional variables included alcohol consumption, smoking status, dietary habits, exercise frequency, health knowledge, and self-reported health status. Participants residing outside Babylon Governorate were excluded. Ethical approval for the study was granted by the College of Pharmacy of the University of Babylon, in December 2023 (protocol number: A-0017).

Data were analysed using the SPSS version 23 software. Descriptive statistics were presented as frequencies and percentages, while associations between categorical variables were examined using the Chi-square test, with the statistical significance set at $p<0.05$.

3. Results and Discussion

Table 1 summarizes the sociodemographic characteristics, lifestyle behaviours, and health status of the 391 participants in our study. No significant differences were observed in healthy living awareness between urban (Hillah city center) and rural (Babylon Governorate district) populations. While positive habits such as adequate sleep and stress management were commonly reported, fewer participants engaged in regular physical activity or adhered to the food pyramid guidelines. This suggests a disconnection between nutritional knowledge and actual dietary behavior.

Sociodemographic variation between urban and rural respondents was minimal, except for age, marital status, BMI, family size, and occupation. Lifestyle and health behaviours did not differ significantly across these groups. Female participants demonstrated significantly greater familiarity with the food pyramid compared to males ($p<0.05$). Smoking status was not significantly associated with comorbidity ($p>0.05$); only 8.2% of respondents were smokers, while 91.8% were non-smokers. The majority reported no chronic illnesses. Similarly, no significant association was found between BMI and comorbidity ($p>0.05$), with most participants across all BMI categories reporting no chronic conditions.

Approximately 30.5% of respondents from the Babil Province were classified as overweight, with prevalence rising to nearly 50% among those in peripheral areas. Obesity rates were higher in the urban center than in the periphery. Chronic diseases and common illnesses were more prevalent among overweight and obese individuals than among those

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with normal BMI. These findings align with prior studies linking obesity to hypertension and diabetes[5,6], although some evidence suggests that overweight individuals may exhibit lower mortality risk[6].

A Malaysian study has reported that 45% of adults failed to adopt healthy lifestyles due to poor dietary choices and sedentary behavior, resulting in various physical ailments[8]. In the present study, only 21.7% of the respondents actively applied food pyramid principles to their dietary choices, indicating limited translation of nutritional awareness into practice. Nevertheless, 60.4% of participants reported being free from illness, suggesting that informed dietary decisions may positively influence overall health. Despite 43.5% falling within the normal weight range, many participants demonstrated food pyramid awareness, preferred home-cooked meals, and rarely consumed fast food.

Cai Lian *et al.*[9] have identified a high prevalence of obesity and non-communicable diseases strongly correlated with sedentary lifestyles, advocating for increased physical activity among the general population. Behavioural interventions have been proposed to promote healthy living and address overweight and obesity[10]. Although most participants were aware of the food pyramid, only 21.7% adhered to its guidelines. Many favoured homemade meals, limited junk food intake, and consumed three meals daily. However, just 21.7% engaged in regular exercise.

4. Conclusion

This study found no significant difference in healthy lifestyle awareness between residents of the Hillah city center and those in the Babylon Governorate districts. While many participants reported positive habits (including adequate sleep, stress management, and food pyramid knowledge), consistent physical activity and dietary adherence were lacking. These findings underscore the gap between health knowledge and behavioural implementation.

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Conflicts of interest

None exist.

ORCIDs

0009-0008-5675-9151 (A.T. Watife); 0009-0007-9701-7034 (N.A. Abdulameer); 0000-0002-3286-0078 (F.A. Alzubaidi); 0000-0001-9454-2326 (H.K. Abdul-Husseein); 0009-0003-4884-7622 (H.F. Al-Shuaibi); 0009-0003-8734-8164 (F.M. Al Jubouri); 0000-0003-0547-622X (H.K.H. Owadh)

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