

Assessment of Nurse's Health Promotion of Their Lifestyles at Al-Kut City Hospitals, Iraq

Ammar A. Okab

Technical Nursing Department, Technical Institute-Suwaira, Middle Technical University, Iraq,
Email: amarabas4@gmail.com

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ABSTRACT

Context: The importance of lifestyle is mainly due to its effect on the quality of life and disease prevention. Poor lifestyle choices lead to chronic diseases or even death. It increases healthcare costs in a time of economic downsizing. Health care practitioners, particularly nurses, are viewed as a role model in their health-promoting lifestyle behaviors.

Aim: The current research aimed to assess the health-promotion lifestyles among nurses at Al-Kut City Hospitals, Iraq. The study was designed to provide a descriptive summary of nurses' health promotion lifestyle scores in each health promotion lifestyle dimension and find the association between sociodemographic characteristics and nurse's health promotion lifestyle dimensions.

Methods: A descriptive cross-sectional study design was carried out in order to achieve the aim of the study by using a self-administered health promotion assessment questionnaire in hospitals in Al-Kut City (Al-Zahra'a Teaching Hospital, Al-Karama Teaching Hospital, Al-Kut for Maternity and Children Hospital) from August 26, 2019, to April 28, 2020. A stratified random sample of 300 nurses who work at hospitals in Al-Kut City was recruited to achieve this study's aim. The Center Ethical Committee approved the study.

Results: In respect of nutrition, 67.7% of the nurses always eat three regular meals daily, while 51% were sometimes taking foods to contain the five essential ingredients in each meal. About the social support domain, 70.7% of the studied nurses always express care and attention to others, while 45.7% sometimes enjoy contact with relatives. Concerning the health responsibility domain, 76% always wash their hands before meals, while 45.7% sometimes notice the appearance of any sign in their body at least monthly. Regarding life appreciation, 79.3% always make an effort to feel good about themselves, while 40.3% sometimes feel interesting and challenged every day. Regarding exercise behaviors, only 43% of the nurses always stand and sit straight to do not affect the vertebrae, 43% sometimes exercise 30 minutes a day and three times a week, while 25% never do exercise 30 minutes a day and three times a week. Finally, the daily stress management behaviors revealed that 52.7% always spend some time each day relaxing muscles, while 55.8% of them sometimes determine the source of stress.

Conclusion: The study concludes that the studied nurses were failed in three health promotion lifestyle domains, namely nutritional behaviors, social support, and daily stress management behaviors. In contrast, they pass in the other three health responsibility domains, life appreciation. The study also indicates a significant association between gender, social support, and life appreciation, while a highly significant association exists between gender and health responsibility. The study recommends behavioral support changes intended to promote healthy lifestyles among nurses.

Keywords: Health promotion, lifestyles, nurses, hospitals

1. Introduction

Lifestyle is defined as "normal and conventional daily activities which are accepted by people during their lives. These activities can affect the health of individuals". By selecting a lifestyle, individuals try to maintain and promote his/her health and avoid diseases by having a proper diet, rest/activity, exercise, controlling body weight, not smoking, and drinking alcohol and immunizing the body against diseases. This set of activities constitutes the lifestyle (Tol et al., 2013).

The history of health promotion founded in the ancient civilizations, the writings of Egyptians, Babylon indicated that health-promotion actions such as concern for water, diet, shelter, and safety were paramount in these cultures. As progressed, civilizations acquired awareness about treatments, and disease transmission methods were

discovered to control and prevent illness (Johnson & Breckon, 2007).

Poor lifestyle choices lead to chronic diseases or even death. WHO estimates that 80% of premature heart disease, diabetes type 2, 40% of cancer and stroke are preventable (Johnson & Breckon, 2007; World Health Organization, 2009). 53% of mortality causes are associated with the individuals' lifestyle (Montgomery, 1997). Most health problems such as obesity, cardiovascular diseases, cancers, and addiction are observed in most countries, especially in developing ones, and are associated with the transformations in the individuals' lifestyle (Park, 2004).

Health care practitioners must be directed their efforts to population determinants where unhealthy lifestyle habits lead to poor health outcomes; then check these outcomes that leading to health promotion lifestyles. Determination of evidence-based practices that health-promotion lifestyles are critical to the health of patients, families, and communities, are effectively control health care costs and improve the health of the community at large (Reeves, &

¹Corresponding author: Ammar Abbas Okab

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Rafferty, 2005; Navarro et al., 2007; World Health Organization, 2009).

Nurses are a population for consideration of nursing education programs. The nurses comprised the largest segment of healthcare professionals. Professional nurses can play significant roles in educating patients regarding healthy lifestyle choices and modeling health-promotion lifestyles (Al-Kandari & Vidal, 2007; Altun, 2008). Many studies document the outcomes of health promotion lifestyles of different sectors of patients, but little is known about nurses' health promotion lifestyles. Nurses often struggle with maintaining a healthy lifestyle. While nurses are often assumed to know how to participate in health-promoting behaviors, this knowledge may not translate into a sustainable change in behavior (Keele, 2019).

A descriptive cross-sectional study was conducted in Turkey between January 2008 and January 2009 on 280 nurses working on Ankara University Hospital revealed the lowest score for physical activity among the health-promoting behaviors (Kirag & Ocaktan, 2013). Another study conducted in a 187-bed community hospital in the Washington D.C. metropolitan area on 127 nurses using a self-reported employer wellness program revealed that nurses experienced slightly lower total scores, especially those above 50 years of age (Kurnat-Thoma et al., 2017).

2. Significance of the study

Health-promotion lifestyles are essential to preserve health. Nurses need to embrace health-promotion lifestyles. This study could increase awareness regarding the current nurses' lifestyles in Al-Kut City- Iraq, the relationships between demographic characteristics, healthy promotion lifestyles, so that future interventions may target behaviors determined to be strongly correlated with health-promotion lifestyles. The health-promotion lifestyles are essential to nurses that leading to change the awareness and attitudes of them. It will increase the effect of nursing action and services in the hospital and their life generally. A study in Iraq titled "Nurses' knowledge and attitudes towards health promotion at Al-Hussein Medical City in Kerbela" presents a shortage in the training courses about health promotion for nurses; there is a lack of knowledge about the importance of regular exercise, particularly for the obese. In addition to the education level, years of experience and training have a positive effect on the level of nurses' knowledge, and training courses positively affect nurses' attitudes toward health promotion (Faris, 2015).

3. Aim of the study

- To assess the health-promotion lifestyles among nurses.
- To provide a descriptive summary of nurses' health promotion lifestyle scores in each dimension.
- To find out the association between sociodemographic characteristics and nurses' health promotion lifestyle dimensions.

4. Subjects and Methods

4.1. Research design

A descriptive cross-sectional study design is carried out to achieve the study's objectives by using the hospitals' assessment technique from August 26, 2019, to April 28, 2020. A cross-sectional study design is a type of observational study design. In a cross-sectional study, the investigator measures the outcome and the study participants' exposures at the same time (Setia, 2016).

4.2. Research Setting

The study is carried out in 3 hospitals selected in Al-Kut City. The selected hospitals included Al-Zahra'a Teaching Hospital, Al-Karama Teaching Hospital, and Al-Kut for Maternity and Children Hospital. Inclusion criteria are hospitals in Al-Kut City. Exclusion criteria are hospitals out-side Al-Kut City and select (100) nurses from each hospital.

4.3. Subjects

A stratified random sampling of all available nurses working at the selected hospitals in Al-Kut City was the sampling technique. They were 300 nurses who are working at the time of data collection. They were distributed equally between the three hospitals (100 nurses from each hospital).

4.4. Tools of data collection

4.4.1. A Structured Interview Questionnaire

An instrument has been developed in the form of a questionnaire based on a review of the relevant literature, studies (Haddad & Umlauf, 1998; Aldossary et al., 2012; Faris, 2015) and work guide in the health promotion unit. The instrument aimed to assess the health-promoting lifestyles. It composed of two main parts as follows:

Part I: Sociodemographic characteristics of nurses, this part is composed of general information about the sample, which consists of 6 items, including (age, gender, education level, residence, years of experience, participation in health promotion courses).

Part II: Health Promoting Lifestyles assessment, this part consists of 6 main dimensions, they were nutritional behaviors (6 statements), social support (7 statements), health responsibility (8 statements), life appreciation (9 statements), exercise behaviors (4 statements), and daily stress management behaviors (6 statements).

Scoring system

Each dimension's item is rated and scored according to a three-point Likert scale, including (always, sometimes, and never). Always was given two scores, sometimes was giving one score, and 0 was given for never. The score was reversed with negative behaviors. The mean score was calculated for each subsection with a cutoff point of 1.5. The pass level was considered under the cutoff point of 1.5 and failed with a cutoff point of over 1.5.

4.5. Procedures

Content validity for the early developed instrument is determined through a panel of 7 experts who have more than five years of experience in their specialties to review the questionnaire for clarity, relevance, and adequacy. Some modifications were done for some items according to the reviewer's point of view to make the questionnaire format clear and understandable. The Correlation coefficient tested the reliability of an instrument's consistency and stability. The determination of reliability of the questionnaire is based on Alpha reliability. The correlation coefficient is (0.782).

Official permission was obtained from the Department of Technical Nursing. Another permission was also obtained from the Ministry of Health, Wassit Health Directorate, to collect the required data. A non-probability sample (non-random sample) of 20 nurses were recruited for the pilot testing. The pilot study was conducted from August 15, 2019, to August 24, 2019. As some modification is done, the pilot sample is excluded from the primary sample.

The data collection process was conducted using face to face interview techniques on an individual basis in a private area in the hospitals to ensure confidentiality and privacy. Each interview lasted from 20-40 minutes, depending on the responses of the interviewee. After completion, the researcher ensures that all statements included in the tools were completed. Then, nurses were thanked for their cooperation.

The study was approved by the Center Ethical Committee affiliated to the Ministry of Health, Wassit Health Directorate, to collect the required data.

4.6. Data analysis

Data analyzed by SPSS package ver. 20. Descriptive data used to describe study variables: frequencies, percentages, mean of the score and standard deviation, cut off point (1.5), undercut off point is pass, upper cut off point is a failure, SD = standard deviation. The inferential statistical data analysis approach used by enforcement of the Chi-square test is used to determine the association between sociodemographic characteristics and nurses' health promotion lifestyles related to different dimensions, testing the significance of the contingency coefficient. For this study, the significant P-value ≤ 0.05 .

5. Results

Table 1 reveals the sociodemographic characteristics of 300 nurses. 62.5% were between 20 and 29 years old, 59% were females, 59.3% had preparatory nursing education level, 76% were residing in urban areas, 72.3% had between 1 and 10 years of experience, 66.7% have participated in health promotion courses.

Table 2 shows the frequency and distribution of health promotion lifestyle dimensions. The table shows that the nutritional behaviors exhibit that 67.7% of the nurses always eat three regular meals daily, 61.3% always drink about one and a half liters of water a day, while 51% were

sometimes taking foods containing the five essential ingredients in each meal, and 50.3% sometimes choose foods that contain much fat.

The table also reveals that the social support domain displayed that 70.7% of the studied nurses always express care and attention to others, 63% smile and laugh with others every day, and 62.7% always maintain a good personal relationship, while 45.7% sometimes enjoy contact with relatives, and 43% focus and keep in touch with others.

Regarding the health responsibility, the table reveals that 76% always wash their hands before meals, 73.3% always read the expiration date on foods, while 45.7% sometimes notice the appearance of any sign in their body at least monthly, look for health information, and choose fresh food without additive

about the life appreciation, 79.3% always make an effort to feel good about themselves, 68% always try to feel happy, while 40.3% sometimes feel interesting and challenged every day, and 34.7 sometimes think their life has a purpose and sometimes correct their disadvantage.

As regards to exercise behaviors, this table demonstrates that only 43% of the nurses always stand and sit straight and do not affect the vertebrae, 43% sometimes do exercise 30 minutes a day and three times a week. In comparison, 42.6% sometimes do muscle stretching exercises daily, and regularly 32.6% never do warm-up exercises before exercise, and 25% never exercise 30 minutes a day and three times a week.

Finally, the daily stress management behaviors reveal that 52.7% always spend some time each day relaxing their muscles, 47.6% always sleep 6-8 hours daily, while 55.8% of them sometimes determine the source of stress, and 47.1% their responses are sufficient for the irresponsible situations that people are turning around.

Table 3 shows the values of health promotion dimensions' scores for nurses. The highest mean score value (1.64) was observed for daily stress management is a failure, and the lower mean score of life appreciation was (1.39) are pass. The table shows that the studied nurses failed three health promotion lifestyle domains: nutritional behaviors, social support, and daily stress management behaviors. In contrast, they pass in the other three health responsibility domains, life appreciation, and exercise behaviors.

Table 4 indicates a statistically significant association between gender and social support and life appreciation, respectively, while a highly statistically significant association between gender and health responsibility. The table also reveals a statistically significant association between residence and social support. However, a highly statistically significant association between years of experience and nutritional behavior, health responsibility, and exercise behavior, respectively, and a significant association between health responsibility and participation in health promotion courses. With no significant association between all domains of health promotion lifestyle and the age of the studied nurses.

Table (1): Frequency and percentage distribution of the studied nurses' sociodemographic characteristics (no. 300 nurses).

Sociodemographic characteristics	F	%
Age		
20-29	187	62.5%
30-39	72	24.1%
40-49	32	10.7%
50 and more	9	2.7%
Gander		
Male	123	41%
Female	177	59%
Education level		
Preparatory nursing	178	59.3%
Diploma nursing	87	29%
Bachelor nursing	35	11.7%
Residence		
Rural	72	24%
Urban	228	76%
Years of experience		
1-10	217	72.3%
11-20	60	20%
21-30	20	6.7%
31 and more	3	1%
Participated in health promotion courses		
Yes	200	66.7%
No	100	33.3%

6. Discussion

An individual's lifestyle influences health and health-promoting behaviors. A healthy lifestyle is a crucial mean to maintain health. Nurses play a significant role as models in health-promoting activities (Al-Qahtani, 2015). The present research aimed to assess the health-promotion lifestyles among nurses, provide a descriptive summary of nurses' health promotion lifestyle scores in each dimension, and determine the association between sociodemographic characteristics and nurses' health promotion lifestyle dimensions.

According to nurses' nutrition behavior towards health promotion lifestyles, around two-thirds of the studied nurses reported they always eat three regular meals daily and drink about one and a half liters of water a day. Besides, more than half of them reported that they sometimes take foods contain the five essential ingredients in each meal and choose foods that contain much fat. This finding is because of the health promotion unit in the hospital educates and did courses about nutrition and diet. The study presented supportive evidence rather than a result by Thacker et al. (2016), where the participants had significantly higher mean scores in the nutrition, health responsibility, and stress management behaviors subscales.

The social support domain of health promotion lifestyles reveals that around two-thirds of the studied nurses reported that they always express care and attention to others, smile and laugh with others every day, and maintain a good personal relationship. Besides, more than two-fifths reported that they sometimes enjoy contact with

relatives and focus and keep in touch with others. This finding is because the culture and society in Iraq support the individual and family. The study presented supportive evidence rather than a result by Hu et al. (2012), who reported that nurses gave themselves the highest scores on interpersonal support followed by self-actualization, stress management, nutrition, health responsibility, and exercise. Nurses who received more social support had stronger self-efficacy, were happier, had more positive health conceptualization, were more likely to have an internal locus of control, had authority outside control, and were tended to follow the more promotion healthy lifestyle. Self-efficacy, work shift, and age were significant predictors, explaining (48%) of total health-promotion lifestyle variance.

According to the health responsibility domain of health promotion lifestyles, around three-fourths of the studied nurses always wash their hands before meals, and read the expiration date on foods, while less than half stated that they sometimes notice the appearance of any sign in their body at least monthly, look for health information, and choose fresh food without additive. This finding is because the nurse always had information about responsibility and can learn the patient and community about their health responsibility. The study presented supportive evidence rather than a result by Wang et al. (2009), who reported a high mean score on exercise and health responsibility dimensions. Also, Keele (2019) reported that nurses scored higher in health responsibility compared to community members.

Table (2): Frequency and percentage distribution of health promotion lifestyles dimensions among the studied nurses (no. 300).

Health Promotion Lifestyles Dimensions	Always		Sometime		Never	
	F	%	F	%	F	%
Nutritional Behavior						
Eat three regular meals daily	203	67.7%	91	30.3%	6	2%
Choose foods that contain a lot of oil	127	42.3%	151	50.3%	22	7.4%
Choose foods that contain dietary fiber	152	50.7%	127	42.3%	21	7%
Drink about one and a half liters of water a day	184	61.3%	96	32%	20	6.7%
Food contains the five essential ingredients in each meal	127	42.3%	153	51%	20	6.7%
Eat breakfast daily and regularly	150	50%	124	41.3	26	8.7
Social Support						
Express care and attention to others	212	70.7%	81	27%	7	2.3%
Focus and keep in touch with others	162	54%	129	43%	9	3%
Discuss my concerns with others	156	52%	121	40.3%	23	7.7%
Smile and laugh with others every day	189	63%	100	33.3%	11	3.7%
Enjoy contact with relatives	125	41.7%	137	45.7	38	12.6%
Maintain good personal relationship	188	62.7%	100	33.3%	12	4%
Talk about my problems with others	78	26%	122	40.7%	100	33.3%
Health Responsibility						
Always read the expiration date on foods	223	73.7%	72	24%	7	2.3%
Try to lose my weight moderately	162	54%	121	40.3%	17	5.7%
Discuss health concerns with colleagues	145	48.3%	129	43%	26	8.7%
Notice the appearance of any sign in my body at least monthly	143	47.6%	137	45.7%	20	6.7%
Wash my hands before meals	228	76%	65	21.7%	7	2.3%
Clean teeth after meals	191	63.7%	100	33.3%	9	3%
Look for health information	154	51.3%	137	45.7%	9	3%
Choose fresh food without additive	143	47.6%	137	45.7%	20	6.7%
Life Appreciation						
Make an effort to feeling good about myself	238	79.3%	56	14.7%	6	2%
Try to feel happy	204	68%	90	30%	6	2%
Make an effort to feel growth and progress in positive direction	188	62.7%	94	31.3%	18	6%
Focus and reinforce my strengths	196	65.3%	94	31.3%	10	3.4%
Focus on my weaknesses and accept them	194	64.6%	91	20.4%	15	5%
I try to correct my disadvantage often	184	61.3%	104	34.7%	12	4%
Trying to know what an important for me	190	64.3%	100	33.3%	10	3.4%
Feel interesting and challenged every day	166	55.4%	121	40.3%	13	4.3%
Think my life has a purpose	170	56.7%	104	34.7%	26	8.6%
Exercise behavior						
Do muscle stretching exercises daily and regularly	115	38.4%	128	42.6%	57	19%
Do exercise 30 minutes a day and 3 times a week	96	32%	129	43%	75	25%
Do warm-up exercises before exercise	95	31.8%	107	35.6%	98	32.6%
Stand and sit straight and do not affect the vertebrae	129	43%	126	42%	45	15%
Daily Stress management behaviors						
Spend some time each day relaxing muscles	158	52.7%	118	39.3%	24	8%
Determine sources of stress	107	35.6%	167	55.8%	26	8.6%
Watch my emotional changes and identify causes	137	45.6%	136	45.4%	27	9%
Sleep 6-8 hours daily	137	47.6%	133	42.3%	30	10%
Determine priorities and set a time schedule for business	131	43.7%	132	44%	37	12.3%
My responses are sufficient for the irresponsible situations that people are turning around	133	44.3%	141	47.1%	26	8.6%

Table (3): Descriptive summary of nurses' health promotion lifestyles scores in all dimension.

Dimension	M±SD		Assessment	Rating
Nutritional Behavior	1.53±0.603		Failure	3
Social Support	1.56	0.610	Failure	2
Health Responsibility	1.47	0.577	Pass	5
Life Appreciation	1.39	0.560	Pass	6
Exercise behavior	1.49	0.582	Pass	4
Daily Stress management behaviors	1.64	0.645	Failure	1

M.S = mean of the score, cut off point (1.5), undercut off point is pass, upper cut off point is a failure, SD= standard deviation.

Table (4): Association between sociodemographic characteristics and nurses' health promotion lifestyles dimensions.

Dimension	Sociodemographic characteristics											
	Age		Gender		Education level		Residence		Experience years		Participated in health promotion courses	
	X ²	S	X ²	S	X ²	S	X ²	S	X ²	S	X ²	S
Nutritional Behavior	0.26	Non	0.87	Non	0.28	Non	0.13	Non	0.001	HS	0.24	Non
Social Support	0.97	Non	0.04	S	0.22	Non	0.02	S	0.07	Non	0.14	Non
Health Responsibility	0.36	Non	0.01	HS	0.45	Non	0.20	Non	0.003	HS	0.05	S
Life Appreciation	0.72	Non	0.04	S	0.84	Non	0.34	Non	0.26	Non	0.99	Non
Exercise behavior	0.89	Non	0.76	Non	0.24	Non	0.08	Non	0.01	HS	0.71	Non
Daily Stress	0.24	Non	0.23	Non	0.88	Non	0.61	Non	0.78	Non	0.46	Non

P: probability level, S: Significant at P < 0.05, NS: Non-significant at P > 0.05, X² = Chi-square value

Regarding the life appreciation dimension, more than three-fourths of the studied nurses reported that they always make an effort to feel good about themselves, and more than two-thirds always try to feel happy with more than a third of them reported that they sometimes feel interesting and challenged every day, and think their life has a purpose. This result is because they are always challenged to attain the personal growth and perseverance necessary to cope with life stress and establish healthy interpersonal relationships. This study finding contradicts that of Wang et al. (2009), who revealed that the domain of life appreciation was the highest among the other health promotion lifestyle domains. This finding has probably reflected the finding that considered nurses did not do well enough in social support and stress management.

About the exercise behavior domain of health promotion lifestyles, the finding displayed almost equal distribution between the three levels, as more than two-fifths of the studied nurses reported they are always standing and sit straight and do not affect the vertebrae. The same percentage reported by the nurses that they are sometimes doing exercise 30 minutes a day and three times a week, while around one third never do warm-up exercises before exercise, and one fourth never do exercise 30 minutes a day and three times a week. This finding might be because they always lack enough time to exercise. After all, they spend a long time working, and the habit and traditions prevent women from doing exercise generally. The same findings and explanations were reported by Sorour et al. (2014), who reported the lowest ranking concerning the incorporation of physical activity into their lifestyle. This finding may have been influenced by Egyptian culture and social structure or characteristics of the studied sample.

Similar findings were reported by Kirag and Ocaktan (2103), who reported the lowest mean score for the physical activity domain. Al-Qahtani (2015) reported a similar finding of the lowest mean score of the nurses' physical activities. Wang et al. (2009) reported that exercise behavior the sixth among the six health lifestyle dimensions.

Concerning the daily stress management behaviors of health promotion lifestyles, the current study reveals that around half of them are always spend some time each day relaxing muscles and sleep 6-8 hours daily, while around half of them sometimes determines the source of stress.

Besides, their responses are sometimes sufficient for the irresponsible situations that people are turning around. These findings might reflect the nurses' high level of stress and inadequate training regarding stress management techniques. These findings are supported by Hazavehei et al. (2012), who revealed that 51.5% of nurses perceived the intermediate level of occupational stress, and 5.9% of them had high job stress levels. 40% of the subjects had a high level of psychological stress, and 75.1% were dissatisfied with their jobs, and a reverse correlation between job satisfaction and perceived stress was seen (r=-0.231). A similar finding was reported by Keele (2019), who reported a low score of nurses regarding the stress management domain of a health-promoting lifestyle.

According to the values of the nurse's health promotion dimension score, the highest mean value (1.64) was observed for daily stress management behaviors. The lower mean scores of life appreciation were (1.39). The study also reveals that the nurses failed to pass three out of six health-promoting lifestyle domains: nutritional behaviors, social support, and daily stress management behaviors while passing through the other three domains: health responsibility, life appreciation, and exercise behaviors. These findings explained the need for nurses' support regarding the failed domains in training, employee support, social and psychological services. The study presented supportive evidence rather than a result by Wang et al. (2009), who reported that the highest mean value was observed for life appreciation, social support, stress management, and nutrition behavior, which had very similar mean values. The mean scores of health responsibility and exercise behavior dimensions were of low score. Najaf-Abadi and Rezaei (2018) reported that the stress-management and physical activity dimensions had the lowest mean score, and health responsibility had the highest.

The findings of the present study show a significant association between gender and social support and life appreciation, respectively; this is because female nurses who constitute about sixty percent of the studied nurses have cared about life, their ideas are full of activity, their activities are numerous, and their ideas are renewed for life and work. The study presented supportive evidence by Al-Qahtani (2015), who reported a similar finding on a study on 420 nurses, 78% were females. They showed the highest mean score on spiritual growth. Also, Borie et al. (2017) reported a highly significant association between gender

and health responsibility because more than half of the nurses' participants were females.

The current study showed a non-significant association between all domains of health promotion lifestyle and the studied nurses' age. This study was reflecting the same health-promoting lifestyle among nurses of all ages. *Borie et al. (2017)* reported a contradicting finding. The nurse in the age group between 20-21 years had a significantly high level of overall health-promoting lifestyles, and the same pattern was also repeated in five dimensions, including health responsibility, physical activity, food practices, spiritual growth, and interpersonal relations. While a highly significant association between gender and health responsibility. This finding might be due to more than half of nurse participants being females; the female nurses are responsible for health. Similarly, *Kurnat-Thoma et al. (2017)* reported a significant association between age and total health promotion lifestyle with the nurses between 40-49 years old, and those more than 50 years were experienced a slightly lower health promotion lifestyle.

The study also shows a significant association between residence and social support. This finding might be due to increased relationships and contact with others in urban areas leading to strong social support. It also shows a highly significant association between years of experience and nutritional behavior, health responsibility, and exercise behavior, respectively; whenever the years of experience increased in nursing work, it led to a change in awareness and attitude, leading to the adoption of more healthy behaviors. It also shows a significant association between health responsibility and participation in health promotion courses because the Ministry of Health in Iraq applied for many health promotion programs. Besides, the health promotion unit in hospitals was responsible for educating the nurses about promoting health. This finding may be due to the increase in the responsibility for wellness to reach the optimum health level. *Al-Qahtani (2015)* reported significant correlations between the health-promoting lifestyle and all demographic variables.

7. Conclusion

The study concludes that the studied nurses failed in three health promotion lifestyle domains: nutritional behaviors, social support, and daily stress management behaviors. In contrast, they pass in the other three health responsibility domains, life appreciation, and exercise behaviors. The study also indicates a significant association between gender and social support and life appreciation, respectively, while a highly significant association exists between gender and health responsibility.

8. Recommendations

The study recommends that employers support nurses' behavioral changes to promote healthy lifestyles, personal well-being, and positive interpersonal relationships. It also recommends the supply of health programs to improve nurses' physical activity in hospitals, implementing health education programs by the Ministry of health to improve

health promotion lifestyle behaviors. In addition to training and development programs must be performed to elevate awareness of the importance of health education and health promotion.

Necessary facilities should be provided at the workplace to encourage healthy behavior. Evidence-based practice teams that include administration, management, and staff are positioned to contribute through education and innovative wellness programs. Organizational efforts to provide sufficient staffing and resources, boost the development of personal resources among nurses, and promote nurses' responsibility for their health could be effective strategies for improving nursing performance quality and patient outcomes.

9. Acknowledgments

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10. Conflict of interests

The authors declare that there is no conflict of interest.

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