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Assessment of Old Age Behaviors Toward Cardiovascular Health Promotion

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ABSTRACT

Objectives: To assess old age behaviors toward cardiovascular health promotion, and to find out the association between old age behaviors toward cardiovascular health promotion with certain sociodemographic characteristic and chronic disease and significant differences in old age health promotive behaviors with respect to the type of geriatric home residence.

Methodology: A descriptive study is conducted throughout the period from April 12th 2022 to June 1st, 2023, to assess the old age behaviors toward cardiovascular health promotion. A purposive sample of (140) old age were selected from males and female's participants from public and private Geriatric Homes at Baghdad City. The validity and reliability of the questionnaire was performed. Data statistical analysis was done through the use of the descriptive and inferential statistical parameters by the SPSS program version (26).

Results: The study result indicates that the study subjects have fair level of health promotive behaviors related to CVDs at their physical activities, dietary patterns, medications use, psychological and mental wellbeing, and seeking for health care. Demographic data and general health statues among elderly in geriatric homes had an impact upon their health promotive behaviors toward CVDs.

Conclusion: The findings indicate that the majority of the elderly studied exhibit fair and reasonable level of CVDs health promotion behaviors. These behaviors demand a significant degree of lifestyle modification and are also difficult. Thus, the elderly cannot totally adhere to such activities.

Recommendations: The study recommends for create a courses for small group counselling that will educate elderly about the importance of a healthy behaviors and its relationship with having CVDs. Implementing and bolstering health education programs through establishing joint effort between the Ministry of Labor and Social Affairs and the Ministry of Health in order to improve the CVDs health promotion behaviors of residents of geriatric care facilities.

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تقييم سلوكيات كبار السن تجاه تعزيز صحة القلب والأوعية الدموية

المستخلص:

الاهداف: تهدف الدراسة إلى تقييم سلوكيات التعزيز الصحي إلتجاه صحة القلب والأوعية الدموية لدى كبار السن. وتحديد العلاقة بين سلوكيات التعزيز الصحي والخصائص الديموغرافية والأمراض المزمنة. وتحديد العلاقة بين سلوكيات المسن ونوع الدار .

منهجية البحث : أجريت دراسة وصفية لتقييم سلوكيات التعزيز الصحي إلتجاه تعزيز صحة القلب والأوعية الدموية للفترة من 12 نيسان 2022 الى 1 حزيران 2023 في دار رعاية المسنين المقيمين في مدينة بغداد على عينة "غرضيه" من (140) شخص من كبار السن الذين يسكنون في الدالر. تم التحقق من الصدق والثبات للإستبيان بالإضافة الى جمع المعلومات وتحليلها.

النتائج: أظهرت نتائج الدراسة إلى أن المسنين الخاضعين للدراسة يتمتعون بمستوى معتدل من السلوكيات المعززة للصحة المتعلقة بأمراض القلب والأوعية الدموية في أنشطتهم البدنية وأنماطهم الغذائية واستخدام الأدوية وكذلك بالنسبة إلى الصحة النفسية والعقلية والحصول على الرعاية الصحية. الخصائص الديموغرافية لها تأثير على سلوكيات التعزيز الصحي إلتجاه أمراض القلب والأوعية الدموية.

الإستنتاجات: تشير النتائج إلى أن غالبية كبار السن الذين تمت دراستهم يظهرون سلوكيات معتدلة ومعقول لتعزيز سلوكياتهم الصحية بإلتجاه أمراض القلب والأوعية الدموية. إن تحسين هذه السلوكيات تتطلب درجة كبيرة من المتابعة والتعديل للنمط الصحي والسلوكي لكبار السن حيث أن هناك صعوبة بالنسبة لقدراتهم في تحسين هذه السلوكيات. ولذلك أظهرت النتائج أن المسنين ليست لديهم القدرة السلوكية التامة للالتزام بمثل هذه الأنشطة لتعزيز السلوكيات إلتجاه أمراض القلب والأوعية الدموية.

التوصيات : يجب إنشاء دورات للإرشاد الجماعي والذي من شأنه أن يثقف كبار السن حول أهمية السلوكيات الصحية وعلاقتها مع الإصابة بأمراض القلب والأوعية الدموية. تنفيذ وتعزيز برنامج التنقيف الصحي من خلال إنشاء جهد مشترك ما بين وزارة العمل والشؤون الاجتماعية ووزارة الصحة وذلك من أجل تحسين سلوكيات تعزيز الصحة لأمراض القلب والأوعية الدموية لكبار السن المقيمين في دور الرعاية للمسنين.

الكلمات المفتاحية: التقييم, السلوك , تعزيز صحة القلب والأوعية الدموية.

Introduction

The prevalence of risky activities varies by gender and increases with age; nonetheless, elderly males appear to participate in riskier behaviors concurrently than elderly women.

The community as a whole is regularly affected by health-risk behaviors. Some parts of wellness are beyond our control. Thus, it is essential to learn how to manage health-risk behaviors. The beneficial transition from an unhealthy to a healthy lifestyle can benefit everyone in one's social network ⁽¹⁾.

According to the Jordanian Ministry of Health (JMOH), cardiovascular diseases accounted for 33% of all deaths in 2011⁽²⁾. In Japan, there are 0.9 million people with coronary heart disease and almost 50,000 people die annually from myocardial

infarction. 30% to 35% of Iranians are affected by coronary artery disease, and the fatality rate has grown from 20% to 25% in 1985 to 35% to 40% now ⁽³⁾.

The AHA states CVDs is the leading cause of death in the US (USA). CADs caused 43.2% of fatalities. CVDs is caused by fatty deposits on artery walls, which harden them. The World Heart Federation (WHF) divides potential risk factors for CVDs in old age into two categories: those that cannot be changed, such as age and gender, and those that can, such as smoking, eating unhealthy, having high blood pressure or cholesterol, being inactive or obese, or having diabetes mellitus (DM), which is promoted by changes in old age behaviors ⁽⁴⁾.

In Iraq, cardiovascular disease is the major cause of mortality due to disease. In emerging nations such as Iraq, there are currently alarming signals of an increasing CVDs risk among the elderly. In addition, the coronary tree is affected by more severe lesions in older patients with clusters of cardiovascular risk factors who develop CAD early in the disease's progression. The bulk of non-communicable disease deaths are attributable to cardiovascular disease (CVDs) (5).

Health promotion is a significant factor in determining elderly health state, and this senior is responsible for his own health. In addition to preventing diseases, reducing morbidities and mortalities, enhancing quality of life, and lowering health-care expenditures, health-promoting behaviors strive to achieve a better level of wellness, self-actualization, and personal fulfillment. A healthy lifestyle and health-promoting activities must be considered the most significant strategy for promoting and maintaining the health of the elderly (6).

Methodology

Descriptive study design using the assessment approach to assess the old age behaviors in Bagdad Governorate.

A purposive sample of (140) old age is selected through the use of non-probability sampling method. The study sample includes old age males and female's participants from public and private Geriatric Homes at

Baghdad city. They were selected according to following criteria:

a. Inclusive criteria that include 1. elderly whose age is 60-year-old and over, 2. The elderly who are permanent residents of Geriatric Homes in Baghdad City.

b. Exclusive Criteria that include 1. Elderly who are under (60) years old, 2. elderly who suffer from physical disability and problems mental and psychological health problems, and 3. elderly who suffer from cancer.

Ethical Committee of the scientific research at the University of Baghdad, college of nursing has approved the study to be conducted. After the old age agreed to participate in the study, anonymous questionnaire was handed to them to maintain a complete confidentiality for the participants.

Through a thorough review of the relevant literature, studies, and consultation with a panel of experts, the researcher constructed an assessment tool to assess the health promotive behaviors of the old age. The instrument consists of the following three major parts: **Part 1:** old age demographic characteristics, it includes their age, gender, marital status, level of education, occupation (before residing in the Geriatric Homes), monthly income, and the method of entering the geriatric homes.

Part 2: Patients' Health History, smoking and alcohol use: Its designed to measure the old age General health statues information which include Two items for old age medical history

of chronic diseases and previous surgeries, smoking and alcohol use.

Part 3: Assessment of Old Age Health Promotive Behaviors; this part includes four aspects of health promotion behavior. A. physical activity: composed of (9) items; B. Dietary Patterns composed of (9) items. C. Drug Use composed of (10) items; D. Psychological and Mental Well-being composed of (11) items; E. Seeking Health Care composed of (9) items. The old age health promotion behavior items are scored to three-level Likert scale as (3) for always, (2) for sometimes, and (1) for never, except the

psychological related negative feeling was scored as (1) for always, (2) for sometimes, (3) for never.

Instrument's content validity was determined through a review of (16) experts in various fields of nursing, and the items' reliability was determined by the internal consistency of the Behaviors of Health Promotion Indicators $r=0.93$.

Data statistically analysis was done through the use of the descriptive and inferential statistical parameters through the SPSS program version (26).

Results

Table (1): Overall Evaluation of Old Age Cardiovascular Health Promotive Behaviors

Levels	F	%	M	SD
Poor (48 – 80)	20	14.3	98.99	18.830
Fair (80.1– 112)	90	64.3		
Good (112.1– 144)	30	21.4		
Total	140	100		

f: Frequency, %: Percentage .M: Mean for total score, SD: Standard Deviation for total score

This table indicates that most of the old age show fair level of cardiovascular health promotive behaviors (64.3%), ($M \pm SD = 98.99 \pm 18.830$).

Table (2): Assessment of Cardiovascular Health Promotion Behaviors' Sub-domains among Old Ages (N=140)

Health Promotion Behavior Sub-domains	M± SD	Assessment
Physical activities	16.83 ± 4.475	Fair (15.1 – 21)
Dietary patterns	18.72 ± 3.846	Fair (15.1 – 21)

Medications use	19.87 ± 4.083	Fair (16.67 – 23.33)
Psychological and mental well-being	22.01 ± 4.528	Fair (18.34 – 25.67)
Seeking health care	19.23 ± 4.665	Fair (15.1 – 21)

M: Mean, SD: Standard Deviation

This table shows that old age health promotive behaviors toward cardiovascular disease are fair for all the subdomains as indicated by their mean.

Table (3): Association between Old Age Health Promotion Behaviors and their Socio-demographic Characteristics and Chronic Diseases (N=140)

Variables		Health Promotion Behaviors				Correlation
		Poor	Modera te	Good	Total	
Type of Home	Governmental	15	63	14	92	$r = .170$ P-value= .044 Sig= S
	Public	5	27	16	48	
	Total	20	90	30	140	
Age group	60– 69 year	12	53	27	92	$r = .247$ P-value= .003 Sig= H.S
	70 – 79 year	6	37	3	46	
	80 year and more	2	0	0	2	
	Total	20	90	30	140	
Gender	Male	6	46	20	72	$r = .252$ P-value= .003 Sig= H.S
	Female	14	44	10	68	
	Total	20	90	30	140	
Marital status	Unmarried	2	18	3	23	$r = .044$ P-value= .609 Sig= N.S
	Married	1	13	1	15	
	Divorced	7	22	14	43	
	Widowed/er	7	19	7	33	
	Separated	3	18	5	26	
	Total	20	90	30	140	
Level of education	Illiterate	2	11	2	15	$r = .225$ P-value= .008 Sig= S
	Read & write	3	22	4	29	
	Primary school	8	25	4	37	
	Intermediate	4	21	11	36	
	Secondary school	1	9	3	13	
	Institute /college	2	2	5	9	
	Higher education	0	0	1	1	
	Total	20	90	30	140	
Monthly	Low	15	71	16	102	$r = .191$

income	Moderate	4	17	11	32	P-value= .024 Sig= S
	High	1	2	3	6	
	Total	20	90	30	140	
Chronic disease	No	0	9	17	26	$r = .493$
	Yes	20	81	13	114	P-value= .001
	Total	20	90	30	140	Sig= H.S
Smoking	No	15	50	26	91	$r = .135$
	Yes	5	40	4	49	P-value= .113
	Total	20	90	30	140	Sig= N.S

r = Spearman correlation coefficient, P = Probability, Sig = Significance, $N. S$ = Not significant, S = Significant, $H.S$ = High significant

This table shows that there are significant relationships between old age cardiovascular health promotive behaviors and their type of home (at p-value= .044), age (at p-value= .003), gender (at p-value= .003), level of education (at p-value= .008), monthly income (at p-value= .024) and chronic diseases at p-values= .001

Table (4): Significant Differences in Old Age Health Promotive behaviors with Respect to the Residence of Geriatric Home (N=140)

HPB	Home	M	SD	T	Df	$p \leq 0.05$	Sig
Physical activities	Government.	16.43	4.497	1.447	138	.148	N.S
	Private	17.58	4.380				
Dietary patterns	Government.	18.23	3.843	2.127	138	.035	S
	Private	19.67	3.709				
Medications use	Government.	19.83	4.018	.181	138	.856	N.S
	Private	19.96	4.247				
Psychological and Mental Well-being	Government.	21.35	4.194	2.454	138	.015	S
	Private	23.29	4.903				
Seeking Health Care	Government.	18.58	4.651	2.356	138	.020	S
	Private	20.48	4.477				
Overall	Government.	96.65	18.175	2.060	138	.041	S
	Private	103.48	19.436				

M: Mean, SD: Standard deviation, t: t-test, df: Degree of freedom, Sig: Significance, p: Probability value, N.S: Not significant, S: Significant, H.S: High significant

This table present a significant difference in old age cardiovascular health promotive behaviors with respect to old age who are residents in the private geriatric home at p-value= .04, particularly behaviors related to dietary patterns, psychological and mental health, and seeking health care at p-values= .035, .015, and .020.

Discussion

According to the findings, the study result indicates that the study subjects have moderate and reasonable level of health promotive behaviors related to CVDs at their physical activities, dietary patterns, medications use, psychological and mental wellbeing, and seeking health care. Elderly people may struggle to prepare nutritious foods due to osteoarthritis, atherosclerosis, hearing loss, and visual impairment. These changes can be linked to physiological and psychosocial changes. Additionally, elderly people use drugs routinely. All these behaviors can lead to negative side effects and put them at risk of more complications from CVDs.

This result is supported by a study that evaluate the health promotive behaviors for elderly, and reported that the vast majority of them have fair level of health promotion behaviors ⁽⁷⁾.

The correlation analysis in this study indicates that there are significant relationships between old ages' health promotive behaviors and the type of their residence, age, gender, level of education, and monthly income (at p-value=.044, .003, .003, .008,.024) respectively. Elderly knowledge and education have positive impact on their behaviors and which can lower the risk CVDs complications.

A cross-sectional quantitative study was conducted among elderly with confirmed CVD (n=167) aimed to explore HPBs and risk

of cardiovascular events among patients with CVDs, they showed that the total score of HPBs was significantly associated with education level ($r = 0.25$ and $p < 0.05$), monthly income ($r = 0.19$), presence of diabetes ($r = 0.23$), and smoking status ($r = -0.15$)⁽⁸⁾.

Improved healthy eating intention among the elderly with a high household income, in terms of perceived advantage and intention to live a healthy life. In addition, education level, household wealth, and gender are substantially connected with risk awareness and healthy lifestyle behaviors ⁽⁹⁾.

Risk behaviors increase with age, and their prevalence differs according to gender, although male seem to have a higher number of concurrent risk behaviors ⁽¹⁾.

The present result is supported by a study conducted in Iraq, to evaluate health promotion behaviors for elderly population at Geriatric Homes in Baghdad City, it was found there is no significant relationship between old age marital status, at p-value more than 0.05⁽⁷⁾.

The study reported that participant smoking status recorded no significant differences at $P > 0.05$ ⁽²⁾. Though, few research reported that having a controlled for health status have failed to indicate any relationship with smoking ⁽⁶⁾.

The study finding displays that behaviors of the elderly who residents in private geriatric home at p-value= .04, better than who are resident in governmental

geriatric home in overall behaviors with regard to dietary patterns, psychological and mental health, and seeking health care at p-values= 0.035, 0.015, and 0.020 respectively. Such study findings indicate to the disparities in the health care services offered by public and private geriatric homes. This care is crucial for influencing on old age health promotion behaviors, particularly in private homes, and monitoring their health, especially those with CVDs.

Conclusions

With regard to the analysis and interpretation of the results, the study concluded the following:

1. Due to the high degree of lifestyle change required and the complexity of the behaviors involved, the elderly is fairly engaged in CVDs health promotion in the areas of physical activity, dietary patterns, psychological and mental well-being, and health care seeking. So, it is unrealistic to expect total compliance from the elderly.
2. Demographic data among elderly Who are residents in geriatric homes present an impact upon their CVDs health promotion behaviors.
3. There is a distinction between elderly residents in governmental and private geriatric homes in terms of the CVDs health promotion behaviors they engage in. This distinction can be attributed to the varying degrees of health care services and health supervision provided in various geriatric homes.

Recommendations

The study recommends to create a curriculum for small group counselling that will educate elderly about the importance of a healthy behaviors and relationship with having CVDs. Implementing and bolstering health education programs through establishing joint effort between the Ministry of Labor and Social Affairs and the Ministry of Health in order to improve the CVDs health promotion behaviors of residents of geriatric care facilities. Use of different media such as radio or television that take its role focusing on the importance of health promotion and its relationship to the cardiac health of the elderly.

Conflict of Interest

None.

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