Assessment of Education Program of Chronic Illness Among Older Adults at Geriatric Homes

تقييم البرنامج التعليمي حول الامراض المزمنة لدى كبار (السن في دور رعاية المسنين)

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الملخص:

الأهداف: تحديد تقييم برنامج التثقيف بشأن الأمراض المزمنة بين كبار السن في دور رعاية المسنين

الخلفية: الأمراض المزمنة هي حالات طبية طويلة الأمد تستمر مع مرور الوقت وغالبًا ما تتطلب رعاية وعلاجًا مستمرين.

المنهجية: تم استخدام تصميم شبه تجريبي يتضمن اختبارات قبلية وبعدية مع عينات غير عشوائية. تتكون العينة المستهدفة من ثلاثين شخصًا مسنًا يشكلون مجموعة دراسية واحدة. أجريت الدراسة في دور رعاية المسنين بمدينة بغداد

النتائج: تم تقييم الأمراض المزمنة بين كبار السن قبل وبعد البرنامج التعليمي عبر ثلاث نقاط زمنية: الاختبار القبلي، والاختبار البعدي الأول، والاختبار البعدي الثاني. أظهرت البيانات أن انتشار أمراض القلب والأوعية الدموية ظل ثابتًا عند ٢٣.٣% طوال فترة الدراسة

الاستنتاجات: من الضروري تقييم الأمراض المزمنة لدى كبار السن المقيمين في دور رعاية المسنين لتقديم رعاية عالية الجودة وتحسين الرفاه العام لهذه الفئة الضعيفة

الكلمات المفتاحية: التقييم، كبار السن، الأمراض المزمنة، دار رعاية المسنين

ABSTRACT

Objectives: To determine the Assessment of Education Program of Chronic Illness among Older Adults at Geriatric Homes

Background: Chronic illnesses are long-term medical conditions that persist over time and often require ongoing care and treatment.

Methods: Pre- and post-tests in a quasi-experimental design with non-probability participants Thirty senior people make up the purposeful sample; they are the subject of one study group. The research is conducted in Baghdad City's geriatric homes.

Results: The assessment of chronic illnesses among older adults before and after the educational program across three time points: pretest, posttest I, and posttest II. The data shows that the prevalence of cardiovascular disease remained constant at 23.3% throughout the study.

Conclusions: It is crucial to assess chronic illnesses in elderly residents of geriatric homes in order to deliver high-quality care and improve the general welfare of this vulnerable population.

Keywords: Assessment, Elderly's, Chronic Illness, Geriatric home

INTRODUCTION Being older is the biological and psychosocial definition of aging. A person whose biological age is advanced is referred to as an old or geriatric patient. Aging is defined as a time-related decline in the physiological processes necessary for survival and fertility. Over the course of a complex dance's life cycle, aging is a complex spatial and temporal hierarchy of dynamic actions. Therefore, aging is a dynamic, multifaceted, hierarchical process that is difficult to break down into separate subprocesses. The majority of bodily structures undergo gradual changes as we age.(1).

Aging is the gradual or sequential change that causes an organism to become more susceptible to weariness, disease, and death. There are several facets to aging. As a result, there are numerous theories that could each shed light on one or more facets of aging. Human aging is the result of a person's gradual accumulation of changes over time, which might include physical, psychological, and social changes. Recent theories link the causes of

aging to either the concept of damage, which holds that the accumulation of damage (including DNA oxidation) may lead to the failure of biological systems, or the concept of programmed aging, which holds that issues with internal processes (epigenetic maintenance can cause aging, such as DNA methylation).
(2).

60% of fatalities and 43% of disabilities worldwide are attributable to chronic illnesses, which are also the primary cause of morbidity and mortality. The World Health Organization stated in 2010 that chronic illnesses were the primary cause of death globally and that their prevalence was continuously rising. In the United States, about 50% of older persons have at least two chronic conditions, and about 80% have one. According to estimates, 70% of Australians suffer from chronic illnesses, and by 2020, that number is predicted to rise to 80%. Diabetes mellitus is one of the main causes of chronic illnesses, which account for 78% of fatalities in Mexico. Approximately 9 million. The research validates ageing is the biggest risk factor for failing health. In the United States chronic conditions cause 7 in 10 deaths
(3).

The numerous, intricate, and frequently lifelong treatment and monitoring regimens needed to manage chronic conditions are largely responsible for the burden that people with these conditions and their caregivers bear; the primary source of this burden is financial. Medicare patients with one chronic disease typically see four doctors annually, while those with several chronic conditions are seen by many doctors over the course of a year. chronic diseases, which have a high rate of impairment and death. Even if the value of health education in enhancing the community's ability to manage chronic illnesses in the elderly is becoming more widely recognized, its actual use in reality is still insufficient. Furthermore, it is simple

to overlook senior mental health education in practice. Targeted health education services are challenging to provide in our community since the team primarily consists of community workers who lack professional medical knowledge (4).

This trend will cause health care costs to skyrocket in the upcoming years. Although each is different, managing chronic diseases including heart disease, diabetes, and hypertension presents similar problems, including managing symptoms and incapacity, keeping an eye on physical markers, food, and exercise. Chronic illness patients are recognized to have complicated health care requirements that are entwined with quality and cost concerns. The amount of physical activity is a significant factor in determining both. This chapter will discuss the value of physical activity for older men and women, which is defined as any movement of the body that requires the use of energy and is produced by the skeletal muscles. In addition to improving functional capacity, physical activity can help prevent a number of chronic illnesses, including metabolic irregularities, cardiovascular disease, various cancers, and issues with mental and cognitive health (5).

The World Health Organization estimates that in 2000, 10% of the world's population was 60 years of age or older; by 2050, that number is predicted to rise to 2 billion. Nearly 89 million Americans are predicted to be 65 and older by 2050, according to the CDC. Given that 62% of Americans 65 and older have multiple chronic diseases, the prevalence of multiple chronic conditions rises with age. In the upcoming years, this effect is anticipated to dramatically raise hospital discharges from 37.8% and hospital days from 44.3% within this age group. The majority of elderly people live on their own, either by themselves or with their spouses; just 5% of elderly people reside in institutions; and more males than women are still married at the age of 85. Women are more likely than men to live

alone later in life as a result. The remaining 35% of elderly people with disabilities live alone, while nearly 65% live with someone else due to health issues. Elderly chronic illness typically results in physical loss and incapacity, though social and emotional changes can also occur. Public spending, social services, health, and other areas are all impacted by the growing number of elderly persons in society. The elderly demand health spending due to their comparatively greater incidence of chronic diseases and decreased mobility (6).

Despite the fact that health education is valuable in order to better understand how biological, psychological, and sociocultural factors influence human aging and development, gerontology and geriatrics have recently been combined into a gerontology-geriatric connection. This is a result of theoretical developments across these four levels. The emergence and advancement of comparative animal-human theoretical models to enhance comprehension of genetic, behavioral, and environmental elements crucial for promoting healthy and active aging, as well as the theoretical advancements in human-machine learning to track and enhance older adults' physical, cognitive, and social functioning and health, are two recent examples (7).

In order to reach consensus on how to best address theoretical dualities in human aging and development, as well as to advance and align paradigmatic thinking and theories with regard to contemporary biological, psychological, and social states and traits essential for reducing vulnerability and increasing success in aging and development outcomes, the scientific collaboration between gerontology and geriatrics is likely to become more prominent in the field of aging research and theory-building. Aging is not an illness; it is a natural process. Changes in the structure and function of the body are normal. Due to these changes, the elderly has unique

demands. They are more susceptible to injuries, chronic diseases, and illnesses. This does not imply that all elderly people have physical and mental impairments. Many people still lead contented and healthy lives in their own houses. Less than 10% of senior citizens reside in nursing homes. The elderly should be educated about their own health care needs, especially the possibility of drug interactions if they take numerous medications, in order to promote and preserve health and prevent disease. They also require enough activity and a healthy diet. Health maintenance programs that cover a variety of health services, wellness programs, health screenings, outreach programs, social assistance programs, and information about community volunteer opportunities are among the programs for healthy older adults (8).

METHOD

Aquasi-experimental design to evaluate elderly residents of Baghdad City's geriatric homes for chronic illnesses.

Studies that seek to assess interventions but do not employ randomization are known as quasi-experiments. Quasi-experiments seek to prove a causal relationship between an intervention and a result, just like randomized trials do. Both pre- and post-intervention assessments can be used in quasi-experimental research. The current investigation was carried out in a Baghdadi geriatric home. There are two levels in the building: an upper second story and a ground floor. There are ten rooms in the women's area, which can accommodate twenty beds. There are 40 rooms in the men's area, some of which are for one person and others for two. The Al-Sulaikh geriatric care facility is situated north of Baghdad in the Al-Sulaikh area of Al Adhamiya City. There are sixty-four senior citizens living at the Geriatric Home. 51 of those individuals were older than 65. The study includes thirty of those. The Geriatric Home has (64) elderly

residents. Of those (51) were over the age of (65) years. (30) of those were included in the study.

A non-probability (purposive sample) of (30) elderly who were living in Baghdad Geriatric Home. These subjects one group (study) because this is due to the limited number of available samples I have and they were selected.

30 elderly residents of the Baghdad Geriatric Home were included in the non-probability (purposive) sample. From April 10 to April 15, 2024, ten elderly residents of Baghdad's geriatric homes will participate in a pilot project. The primary study sample did not include the pilot study sample. Assessment of elderlies with chronic illness

Before the beginning of the study, an assessment of the elderlies with chronic illness through a focusing group consisted of (10) elderly's during the period from the 10th to 15th of May, 2024, by a simple questionnaire composed of (20) items. Each senior was given the same time period to answer the questions. In this stage, data were collected from elderlies for the purpose of assessing their self-care needs. The results of the assessment indicate that most of elderly's have a poor knowledge toward with chronic disease. Therefore, this assessment has revealed the need to construct an educational program in order to improve their knowledge toward with chronic disease

The assessment was performed through the use of content data analysis in which the elderly self-care needs were prioritized with respect to a scale of (yes and no). Data were collected from elderly who lived in Baghdad Geriatric home. The data collection process was conducted in several stages. Before the first stage, data was collected by assessing and identifying the elderly's need for self-care using a questionnaire consisting of)20(questions. Through this, the problems and needs of the elderly were identified. Based on these

findings, a self-care educational program and form were designed for older adults with chronic diseases)10th to 15th of May, 2024(. In the next stage, a pilot study was conducted to ensure the validity of the questionnaire in achieving the study's objective on the specified date)20th to 25th of May, 2024(

The first stage Pretest: involved gathering information from (30) elderly's individuals who met the sampling criteria, consisting of a single group. Data was collected face-to-face, with each individual taking (20-30) minutes to answer 40 questions (June 20th 2024 to June 22th 2024).

After completing the sample collection and identifying their needs, the educational program was provided to the same group of (30) elderly's individuals who met the criteria. The program consisted of 5 lectures conducted over several consecutive days, with each lecture lasting (30-40) minutes in a meeting room designated for the elderly (June 25th 2024 to June 30th 2024).

Posttest I: Two weeks after the educational program was completed, data was collected again from the same group of 30 elderly individuals to evaluate their benefit from the program, with each individual taking (20-30) minutes to answer 40 questions (July 15th 2024).

Posttest II: One month after the second round of data collection, information was gathered for the third time from the same group of 30 elderly individuals who met the sampling criteria, with each individual taking (20-30) minutes to answer 40 question (September 9th 2024). Analyzing data is an essential step in nursing research, wherein various methods are employed to describe and assess information gathered by the researcher. The choice of analysis method depends on the nature of the collected data, with quantitative research specifically utilizing descriptive and inferential statistics to analyze numerical data. (O'Connor, 2020)

The data were analyzed and interpreted through use of the application of Statistical Package for Social Sciences (SPSS), version 26.0.

RESULTS

The distribution of the sociodemographic traits of the study's older individuals was shown in Table (1). With a mean age of 72 years and a standard deviation of 5 years, the age distribution reveals that the largest proportion of participants (40%) are between the ages of 65 and 69. In terms of gender, 36.7% of participants are women and 63.3% of participants are men.

According to marital status, a sizable percentage of participants are divorced (40%) and widowed or widowed (23.3%), with only 6.7% of them being single.

The groups' educational backgrounds vary; the majority (30%) have only completed elementary or intermediate school, while the minority (20%) have a bachelor's degree or above.

Sixty percent of members depend on a monthly pension, while sixteen percent do not have any source of income. Lastly, only 13.3% of participants believe their monthly income is sufficient, while the majority (70%) believe it is insufficient.

Table 1: Distribution of Older Adults according to their Socio-demographic Characteristics

List	Characteristics		F	%
1	**Age (year) M±SD= 72 ± 5**	65 – 69	12	40
		70 – 74	7	23.3
		75 – 79	7	23.3
		80 – 84	4	13.4
		Total	***30***	***100***
2	**Sex**	Male	19	63.3
		Female	11	36.7
		Total	***30***	***100***
3	**Marital status**	Unmarried	2	6.7
		Married	6	20

		Separated	3	10
		Divorced	12	40
		Widowed/er	7	23.3
		Total	***30***	***100***
4	**Level of education**	Read & write	5	16.7
		Primary school	9	30
		Intermediate school	9	30
		Secondary school	1	3.3
		Bachelor or higher	6	20
		Total	***30***	***100***

List	**Characteristics**		**F**	**%**
5	**Source income**	No income source	5	16.7
		Monthly pension	18	60
		Social care	7	23.3
		Total	***30***	***100***
6	**Perceived monthly income**	Insufficient	21	70
		Barely sufficient	5	16.7
		Sufficient	4	13.3
		Total	***30***	***100***

No: Number, f: Frequency, %: Percentage, M: Mean, SD, Standard deviation

The evaluation of chronic illnesses in older persons at three time points—pretest, posttest I, and posttest II—before and after the educational program is shown in Table (2). According to the data, during the course of the study, the prevalence of cardiovascular disease stayed steady at 23.3%.

A decrease from 40% on the pretest to 33.3% on both posttests indicates a minor improvement in the management of diabetes mellitus.

Additionally, there was no change in the prevalence rates of pulmonary/bronchial disease and musculoskeletal disease, which remained at 26.7% and 16.7%, respectively, throughout all time points.

The most common illness, hypertension, regularly afflicted 63.3% of patients. It is noteworthy that during the course of the study, none of the individuals experienced hematological disease, hepatomegaly, malignancy, epilepsy, or hypothyroidism.

The prevalence of colon disease (13.3%) and renal disease (6.7%) remained constant during the three evaluations.

From 20% at the pretest to 23.3% in the posttests, there was a modest rise in gastrointestinal disease.

Table 2: ***Assessment of Chronic Illnesses among Older Adults Pre, and Post Educational Program***

List	Chronic Illness Ass.		Pretest		Posttest I		Posttest II	
			F	%	F	%	f	%
1	Cardiovascular disease	No	23	76.7	23	76.7	23	76.7
		Yes	7	23.3	7	23.3	7	23.3
2	Diabetes mellitus	No	18	60	20	66.7	20	66.7
		Yes	12	40	10	33.3	10	33.3
3	Musculoskeletal disease	No	22	73.3	22	73.3	22	73.3
		Yes	8	26.7	8	26.7	8	26.7
4	Pulmonary and bronchial disease	No	25	83.3	25	83.3	25	83.3
		Yes	5	16.7	5	16.7	5	16.7
5	Hypertension	No	11	36.7	11	36.7	11	36.7
		Yes	19	63.3	19	63.3	19	63.3
6	Gastrointestinal disease	No	24	80	23	76.7	23	76.7
		Yes	6	20	7	23.3	7	23.3
7	Hematological disease	No	30	100	30	100	30	100
		Yes	0	0	0	0	0	0
8	Hepatomegaly	No	30	100	30	100	30	100
		Yes	0	0	0	0	0	0
9	Renal disease	No	28	93.3	28	93.3	28	93.3
		Yes	2	6.7	2	6.7	2	6.7
10	Colon disease	No	26	86.7	26	86.7	26	86.7
		Yes	4	13.3	4	13.3	4	13.3
11	Cancer	No	30	100	30	100	30	100

		Yes	**0**	**0**	**0**	**0**	**0**	**0**
12	**Epilepsy**	**No**	**30**	**100**	**30**	**100**	**30**	**100**
		Yes	**0**	**0**	**0**	**0**	**0**	**0**
13	**Hypothyroidism**	**No**	**30**	**100**	**30**	**100**	**30**	**100**
		Yes	**0**	**0**	**0**	**0**	**0**	**0**

No: Number, Ass: Assessment, f: Frequency, %: Percentage

Table 3*: Assessment of Health Status-related variables among Older Adults Pre, and Post Educational Program*

List	**Variable Ass.**		**Pretest**		**Posttest I**		**Posttest II**	
			F	**%**	**f**	**%**	**f**	**%**
1	How often do you see your doctor for chronic condition checkups?	No	21	70	0	0	4	13.3
		Yes	9	30	30	100	26	86.7
2	If you are taking drugs to treat your chronic illness, do you miss some doses?	No	11	36.7	21	70	21	70
		Yes	19	63.3	9	30	9	30
3	Does your chronic health condition cause interference in other aspects of your life?	No	4	13.3	17	56.7	17	56.7
		Yes	26	86.7	13	43.3	13	43.3
4	Does your chronic condition make you feel depressed and sad?	No	5	16.7	18	60	18	60
		Yes	25	83.3	12	40	12	40
5	Do you feel that you can control your chronic health condition?	No	14	46.7	5	16.7	5	16.7
		Yes	16	53.3	25	83.3	25	83.3
6	Do you see problems managing your chronic condition?	No	10	33.3	23	76.7	23	76.7
		Yes	20	66.7	7	23.3	7	23.3
7	Have you done these medical tests in the last months?	No	28	93.3	2	6.7	2	6.7
		Yes	2	6.7	28	93.3	28	93.3
8	Can you take the medication by yourself?	No	7	23.3	30	100	30	100
		Yes	23	76.7	0	0	0	0

9	Can you go to the hospital alone?	No	10	33.3	4	13.3	30	100
		Yes	20	66.7	26	86.7	0	0

No: Number, Ass: Assessment, f: Frequency, %: Percentage

DISCUSSION Age Distribution. Forty percent of participants are between the ages of 65 and 69, with a mean age of 72 and a standard deviation of five years. This suggests that the study's main focus was on individuals in their early to mid-stages of older adulthood. Gender: Women make up 36.7% of participants, while males make up the majority (63.3%). This gender distribution may have an effect on the health issues identified in the study because different chronic illnesses have different prevalence rates among men and women (9).

Self-management support for older individuals with chronic illness: implications for nursing practice was the conclusion of a prior study conducted by Brian Keogh. The average age of the participants was 72.6 ± 7.49 (range: 60 to 99) years, and the majority (62.3%) were female. 91 individuals (83.3%) lived with their families, and the majority of participants (78.9%) were married. The majority of participants (53.7%) had completed high school or above, and 45.9% identified as Buddhists. Over 90% of those who took part did not work a full-time job (10).

Levels of Education: Participants have a range of educational backgrounds. A significant percentage (30 percent each) have completed primary or intermediate school, and 20% hold a bachelor's degree or above. Health literacy, which in turn may impact a person's capacity to manage chronic diseases and make knowledgeable healthcare decisions, can be influenced by educational attainment. The findings concur with Frieswijk. Comparing the study sample by gender, it is found that 65 percent of the participants are men and the remaining fraction are women. Regarding their level of education, most of them had a middle level

of education, such as reading and writing, and had completed primary school. Additionally, the results showed that the largest percentage of the study sample were unemployed, not working, retired, and housewives (11-12).

Throughout all time periods, the prevalence of cardiovascular disease remained consistent at 23.3%, suggesting that the educational program had no impact on the condition's prevalence. The way that diabetes mellitus is managed has slightly improved. The prevalence decreased from 40% at the pretest to 33.3% in both posttests I and II, indicating that the program might aid in diabetes management. The findings of the study, which was carried out with Banker and others, examined the health profiles of the residents of assisted living facilities. They found that most of them suffer from a chronic condition. Furthermore, Biswas, Nahed, and others found that the established economic system was unable to meet their needs (13).

The prevalence rates of musculoskeletal disorders and pulmonary/bronchial disorders were constant at 16.7% and 26.7%, respectively, during the trial. This suggests that the program had no effect on these particular health issues. Over a lengthy period of time, 63.3% of patients suffered from hypertension, the most prevalent condition. This implies that the program had no effect on its prevalence. Wang, JJ., in their study on the ability to take care of oneself and the representation of illness in older adults with chronic illnesses. About equal percentages of the Overwhelmed group are made of patients with HF (36%), COPD (30%), and CKD (34%). The Stable group contained more patients with CKD (46%) than HF (26%) and COPD (28%). Approximately equal percentages of patients with HF (39%), CKD (33%), and COPD (28%), respectively, made up the Confident group (14).

The frequency of medical visits for checkups of chronic conditions improved dramatically, despite the fact that just 30% of participants attended routine exams at the pretest. This number rose to 100% in posttest I, but it slightly decreased to 86.7% at posttest II. Michael T. Lawless conducted a study on tools for assessing the self-care and self-management of chronic conditions among older adults living in the community. There were 107 papers from 103 investigations in the final Revie. A total of forty measurement tools were included in the review. Of the 40 instruments, 23 (57.5%) were disease-specific. Type 2 diabetes (20.0%), heart failure (7.5%), hypertension (7.5%), COPD (7.5%), and chronic kidney disease (CKD) (7.5%) were the most prevalent conditions (15).

Of these, seventeen (42.5%) were non-disease-specific, meaning they were designed to be utilized for any diagnosis. Eleven tools (27.5%) were used to measure self-care or self-management in people with multiple morbidities (16).

The opinion that chronic health disorders hindered other aspects of life improved from 86.7% at pretest to 43.3% at posttest I, and this improvement continued at posttest II. According to Riegel's analysis, 44.8% of the trials were conducted in North America, followed by Asia (28.0%), Europe (20.7%), Australia and New Zealand (3.5%), and South America (2.8%). This meta-analysis included 68.2% of trials with diabetes, 59.3% of trials with heart failure, 81.3% of trials with hypertension, 93.3% of trials with asthma, 80.0% of trials with coronary artery disease, and 100% of trials with chronic obstructive pulmonary disease, in comparison to the original scoping study (17).

The findings, which were obtained by Mahanaz, demonstrate that study participants in nursing home residents practiced self-care

for chronic illnesses. Specifically, 75% of the elderly consumed milk, dairy products, meat, fresh vegetables, and fruits, and nearly 60% of them followed a low-fat and low-salt diet. The results are in line with the study's conclusions regarding the high proportion of older individuals' food-related health promotion practices when compared to other areas (18).

CONCLUSIONS

1- The study has verified that the educational program has become a valuable instrument for enhancing the knowledge and practices of geriatric self-care.
2- The elderly's self-care practices were much enhanced by the teaching program. Between the pretest and posttest, I and II, the overall scores for self-care practice behavior increased significantly.
3- 3. While other chronic conditions remained unchanged, the educational program appears to have had some positive effects on the management of diabetes.
4- The percentage of individuals who believed they could manage their chronic illness rose from 33.3% at the pretest to 76.7% at the posttest after the intervention, demonstrating improved self-management skills.
5- The success of these programs highlights the importance of continuing to fund educational interventions for senior adults. people, with a focus on individualized treatment, hands-on learning, and psychosocial support to enhance their general health and capacity for self-care.

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