

Effectiveness of Instruction Program on Caregiver Knowledge concerning Emergency Care for Geriatrics at Al-Russafa Geriatric Home in Baghdad City

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ABSTRACT

Objective:

- 1- To evaluate the effectiveness of an instructional program on caregiver in geriatrics home
- 2- To find-out the relationship between the effectiveness of the instruction program and level of education, training course, and year of experiences of caregiver

Methodology: A quasi-experimental design study is conducted at geriatric home in AL – Russafa sector in Baghdad City which as (Al Cyelikh, and AL- Rashad) . The study was started at 13rd of December 2018 to 7 February 2019. randomly sample of (20) caregiver works in geriatric home were studied . Data were collected throughout the utilization of the adopted questionnaire and interview technique. The questionnaire was consists of (48) items related to emergency care for emergency situation for geriatrics persons, the reliability of instrument was 0.84 by using cronbachs alpha, the data analysis done by using the statistical methods which include (descriptive, and inferential statistics)

Results: The socio-demographic characteristics of caregiver who participate in present study were most nurses of them, 80%, 60% in Al Cyelikh, and AL- Rashad geriatric home, respectively most of them have experiences in age 39-48 years old, high percent of them graduated from college, and live in urban area, 70%, and 80% of caregiver in Al Cyelakh, AL- Rashad geriatric home respectively have had emergency cases in their work shift, 85%, 90% of cases was saved in both geriatric home respectively, and there were effectiveness of instructional on caregiver knowledge toward the management of emergency cases throughout the total mean at pre and post test which of (1.2 and 1.2) (moderate level), to (1.7 and 1.7) high level of knowledge for Al Cyelikh, and AL- Rashad geriatric home respectively.

Conclusion: the study concluded that there were positive effect of instruction program on caregiver knowledge toward emergency care of geriatric persons

Recommendations: The study recommends to intensification training courses inside and outside the country and encourages employees to use safety measures to avoid injuries to the elderly persons.

KEYWORDS: Effectiveness. Instructional program , caregivers . Knowledge, Geriatric Home . Elderly.

فاعلية البرنامج الإرشادي في معارف مقدمي الرعاية حول العناية الطارئة للمسنين في دور المسنين في مدينة بغداد/جانب الكرخ

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الخلاصة:

الاهداف:

- 1- يهدف البحث الى تقييم مدى تأثير البرنامج على معلومات مقدمي الرعاية في دور المسنين .
 - 2- ايجاد العلاقة بين تأثير البرنامج ومستوى التعليم ، والدورات التدريبية، وسنوات الخبرة لمقدمي الرعاية.
- منهجية البحث :** اختيرت عينة عشوائية تكونت من (20) مقدم رعاية من النساء والرجال، اختيرت العينة من دور المسنين في مدينة بغداد/ جانب الرصافة، لتطبيق البرنامج، بدأت الدراسة من 2018/12/13 الى 2019/2/7

تم استخدام استمارة استبانة لرصد المعارف وجمع بيانات مقدمي الرعاية تالفت من جزئين، الجزء الاول يتعلّق بالمعلومات الديموغرافية لمقدمي الرعاية، الجزء الثاني يضم محورين تتضمن (48) فقرة تتعلّق بمعلوماتهم حول التغيرات الفيزيولوجية والمشاكل الصحية وكذلك معرفتهم حول العناية الطارئة لكبار السن.

النتائج: كشفت نتائج الاختبار القبلي لمقدمي الرعاية في دور المسنين ان معارف مقدمي الرعاية حول التغيرات الفيزيولوجية والمشاكل الصحية وكذلك العناية بالحالات الطارئة كانت ذات نسبة مئوية واطنة، في حين اظهرت نتائج مابعد الاختبار ان معارف مقدمي الرعاية حول التغيرات الفيزيولوجية والمشاكل الصحية وكذلك العناية بالحالات الطارئة قد تحسنت بسبب التأثير الايجابي للبرنامج الارشادي عليهم، وتوصلت الدراسة بعدم وجود علاقة بين فاعلية البرنامج الارشادي في معارف مقدمي الرعاية والمعلومات الديموغرافية المتضمنة الجنس، والعمر، والحالة الاجتماعية، والدخل، والسكن بينما اوجدت الدراسة علاقة ذات دلالة احصائية بين فاعلية البرنامج الارشادي وسنوات الخبرة، والمستوى التعليمي وعدد الدورات التدريبية وحصول الحالات الطارئة في مستوى $P \leq 0.05$

الاستنتاجات: استنتجت الدراسة بان البرنامج الارشادي ذو تأثير ايجابي على معارف مقدمي الرعاية للمسنين والمتعلقة بالعناية الطارئة.

التوصيات: اورست الدراسة بتكثيف الدورات التدريبية داخل وخارج العراق وتشجيع مقدمي الرعاية على استخدام اجراءات السلامة لتجنب اصابات كبار السن، واعداد جميع الادوات الطبية المتقدمة والمتعلقة بالاسعافات الأولية في دور المسنين لتشجيع انقاذ الحياة، وكذلك اجراء اختبار وتقييم طبي لجميع كبار السن في دور المسنين من اجل تحديد المشاكل الصحية التي يعاني منها والتي يمكن ان تؤدي الى حدوث حالات طارئة.

الكلمات المفتاحية: مقدم الرعاية، العناية المطارئة، المسنين، دور المسنين

Introduction

The World Health Organization (WHO) considers that the age of the elderly is begins at sixty-five years and above, and usually the activity of individuals at this stage and their body are weak and consider themselves unproductive after they were the basis for the tender They think that they become dependent on society in general and on their families in particular, and all these things are reflected negatively on their health and mental state, and begin the stage of anxiety and thinking about the future and what it contains? [1].

Population ageing can lead to a larger number of individuals with physical and emotional disorders, which increases the demand for caregivers. In Brazil, for example there is a high prevalence of functional disability in older adults. Functional incapacity among older adults directly interferes in their family, since their dependence in Activities of Daily living (ADLs) requires the presence of a caregiver, older adults have special healthcare serves needs that can make their caregiver more complicated. More than half of adults age 65 and older have one or more of medical problems, such as heart disease, diabetes, arthritis,

Alzheimer's disease, or high blood pressure, falls, syncope, fractures. Caring for older people with multiple health problems can be tricky, even for caregiver professionals who specialize in Geriatrics homes [2].

In the period (2012-2013), 55% of all unintentional accidental deaths among adults aged 65 years or over were caused by falls. Between 2000 and 2013, the mortality rate of age-adjusted falls in 65-year-olds more than doubled from 29.6 per 100,000 to 56.7 per 100,000. In 2012-2013, the death rate from suffocation increased more than 8 times among adults aged 85 years and over (26.5 per 100,000) compared to adults aged 65-74 (3.1 per 100,000). Among adults over the age of 65 and over, the death rate from fire was more than twice that of non-black Latino adults, as was the case for Hispanic adults. The mortality rate among motorists aged 65 years and above was 1.7 times higher in non-metropolitan areas than in urban [3].

The prevalence of breathlessness, medically known as dyspnea, in the general elderly population varies between 9% to 59%, with a higher prevalence in older populations and in women [4]. A large national primary care study found that one in three people seen by their

family practitioner with breathlessness was over 75 years old. Common cardio-respiratory conditions such as cancer, chronic non-malignant lung disease, and heart failure increase in prevalence with age and are common causes of breathlessness. During the period 2007-2010 in the United States of America, there were 2214 deaths among persons aged 65- due to suffocation from food (choking). The mortality rate for this cause is higher among the elderly than among any other age group, and the three most common additional conditions listed on the death certificate were heart disease, dementia and diabetes [5].

Subjects and Methods:

A quasi-experimental design study is conducted to find out the effectiveness of instruction program on caregiver knowledge concerning emergency care for elderly at geriatric home in (Al Cyelikh and Al- Rashad GCH) at Al-Russafa sector in Baghdad City which as (Al Cyelakh, AL- Rashad) from 3rd December 2018 to 7 February 2019. The sample of the study consists of (20) caregiver works in geriatric home, which

is selected throughout the use of probability sampling approach. The study instrument was constructed based on advanced references related to study problem to reach the objectives of the study, which consist of two parts, the first deals the caregiver knowledge related to physiological, and health problems of elderly, and the second part deals the practices related to management of emergency cases, which consists of (48) items. The reliability of instrument was (0.84) by using Cronbach's alpha, and the data analysis done by using the statistical methods which as (descriptive, and inferential statistics)

Results

Table(1) represents that the high percentage (60%) of the study sample was nurses works in AL- Rashad geriatric care home, and (40%) was nurses works in Al Cyelikh geriatric care home, (30%) percentage was A social researcher for both AL- Rashad and Al Cyelikh geriatric care home, (20%) was doctor work in Al Cyelikh GCH, (10%) doctor work in AL- Rashad.

Table (1) Distribution of the Sample According to Geriatric Care Home (GCH)

Variable		Al Cyelikh (10)		AL- Rashad (10)	
			F	%	F
Specialty of caregivers	-Doctor	2	20%	1	10%
	-Nurse	4	40%	6	60%
	-A social researcher	3	30%	3	30%
	A psychological researcher	1	10%		
	others				
Total		10	100%	10	100%

Table (2) : represents that the high percent (80%) of the study sample are males more than females in Al Cyelikh GCH, (% 60) males more than females in AL- Rashad GCH, and 40% of them at age group (39-48) years old, for both in Al Cyelikh and

AL- Rashad GCH, (60%) of the caregiver have Bachelors degree in Al Cyelikh GCH, and (40%) have collage degree in AL- Rashad GCH, (100 %) of the caregiver were married in AL- Rashad GCH, (80%) of the caregiver was married

in Al Cyelikh GCH, (60.0%) of the caregiver with Barely Sufficient income in Al Cyelikh GCH, and (100.0%) of the of

the caregiver in Al Cyelikh from urban area.

Table (2): Socio-Demographic information for caregivers

Variable	Classification	Al Cyelikh (10)		AL- Rashad (10)	
		F	%	F	%
Gender	Male	8	80.0	6	60.0
	Female	2	20%	4	40.0
Age	19-28 years	2	20%	2	20.0
	29-38	3	30%	4	40.0
	39-48	4	40%	4	40.0
	49 & above	1	10%		
Level of education	Secondary			2	20.0
	institute	4	40.0	4	40.0
	collage	6	60.0	4	40.0
	Post graduate				
Social status	Unmarried	2	20.0		
	Divorced				
	Married	8	80.0	10	100.0
	Widowed				
Income	Sufficient	2	20.0	4	40.0
	Barely Sufficient	6	60.0	2	20.0
	Not Sufficient	2	20.0	4	40.0
Living	Rural			4	40.0
	Urban	10	100.0	5	50.0
	In nursing home			1	10.0

Table (3) shows that (90%) in Al Cyelikh, (70%) AL- Rashad GCH have(1-10) years of experience's, (90%) in AL- Rashad, and (70%) in Al Cyelikh GCH not trained about emergency care (80%) in AL- Rashad , (70%) in Al Cyelakh have emergency cases in time of work shift , While the percentage of the

common emergency cases in Al Cyelikh (71.4%) was dyspnea , (25%) of cases in AL- Rashad was dyspnea, shocking, fainting, and falls, and (85%), and 90% of case was saved in both geriatric. And the number of emergency cases monthly occur in both geriatric home is from (1-2) cases monthly.

Table (3): General information for caregivers in Geriatric home in Baghdad City

Variables	Classification	Al Cyelikh (10)		AL- Rashad (10)	
		F	%	F	%
Year of experiencers	1-10 years	9	90.0	7	70.0
	11-20			3	30.0
	21-30	1	10.0		
Training course related to first aid	Yes	3	30.0	1	10.0
	No	7	70.0	9	90.0

Have you got emergency cases	Yes	7	70.0	8	80.0
	No	3	30.0	2	20.0
More common emergency cases N=7	Dyspnea	5	71.4	2	25.0
	Shocking	2	28.6	2	25.0
	Fainting			2	25.0
	Falls			2	25.0
	fracture				
dealing the emergency cases	Save	6	85.0	9	90.0
	Not save	1	15.0	1	10.0
Number of emergency cases monthly	1-2 in years	10	100.0	10	100.0
	3-5 in years				

Table (4): shows the evaluation of caregiver Knowledge about physiological changes and health problems of geriatric at pre – test which presented that the level

of caregiver knowledge was moderate according to total mean which of (1.5), (1.5), for Al Cyelikh, AL- Rashad, geriatric care homes respectively.

Table (4): Knowledge of Health Caregivers about Geriatrics and their Health problems at pre- test

No	Items	Al Cyelikh			AL- Rashad		
		M.	SD.	Ass.	M.	SD.	Ass.
	The elderly suffers from						
1-	Constipation	1.50	.70	M.	1.50	.707	M.
2-	visual impaired	1.70	.67	M.	1.70	.674	M.
3-	chronic health conditions	1.40	.69	M.	1.40	.699	M.
4-	malnutrition	1.40	.84	M.	1.40	.843	M.
5-	poor hearing	1.50	.84	M.	1.50	.849	M.
6-	sensory disability	1.50	.84	M.	1.50	.84	M.
7-	lost their balance	1.70	.82	M.	1.70	.823	M.
8-	urinary incontinence	1.60	.84	M.	1.60	.843	M.
9-	Inactivity due to arthritis and loss of muscle tone and elasticity	1.50	.84	M.	1.50	.849	M.
10-	loss of Memory (Alzheimer's)	1.60	.84	M.	1.60	.843	M.
	Total mean	1.5		M.	1.5		M.

Low≤1.00, middle =1.1-1.9, high=2-3

Table (5) shows the evaluation of caregiver Knowledge about physiological changes and health problems of geriatric at post – test which presented that the level

of caregiver knowledge was high according to total mean which of (2.75), (2.79), for Al Cyelikh, AL- Rashad, geriatric care home respectively.

Table (5): Knowledge of Health Caregivers about Geriatrics and their Health problems at post – test

No.	items	Al Cyelikh			AL- Rashad		
		M.	SD.	Ass.	M.	SD.	Ass.
	The elderly person						
1-	constipated	2.80	.421	H	2.80	.632	H
2-	visual impaired	2.70	.674	H	2.70	.674	H
3-	Have chronic health conditions	2.90	.316	H	2.70	.674	H
4-	malnutrition	3.00	.000	H	2.90	.316	H
5-	poor hearing	2.70	.674	H	2.80	.632	H
6-	sensory disability	2.80	.632	H	2.80	.632	H
7-	Loss their balance	2.60	.843	H	2.90	.316	H
8-	urinary incontinence	2.70	.674	H	2.70	.674	H
9-	Inactivity due to arthritis and loss of muscle tone and elasticity	2.60	.843	H	2.90	.316	H
10-	memory loss (Alzheimer's)	2.70	.674	H	2.70	.674	H
	Total mean	2.75		H	2.79		H

Low≤1.0, middle =1.1-1.9, high=2-3

Table (6) shows the effectiveness of instructional program on caregiver responses related to emergency care of situation in geriatric home at pre and post-test was improved through the changes of total mean for domains of

practical knowledge must be applied during emergency situation which of (1.2, 1.2) at pre- test to (1.7, 1.7,) at post test for Al Cyelakh, AL- Rashad, respectively.

Table (6): Total Mean of Caregiver responses related to Emergency Care for Emergency Situation in Geriatric home at pre and post - test

Name of home		Al Cyelikh	AL- Rashad
Pre-practices	Total mean	1.2	1.2
	Levels	M	M
Post-practices	Total mean	1.7	1.7
	levels	H	H

Low= ≤ 0.6; Middle= 0.7- 1.2; High = 1.3-2

Table (7) presented that there were no significant relationship between the effectiveness of instruction program and caregiver level of education, year of

experiences, training course, and occurrences of emergency situation in Al-Rashad geriatric home at P≤0.05 level.

Table (7): Correlation between the effectiveness of Instruction Program and Caregiver level of Education, Year of Experiences, Training Course, and Occurrence of emergency cases in Al-Rashad Geriatric Home

Al-Rashad		Level of education	Year of experiences	Training course	Occurrences of cases	knowledge	knowledge for management of emergency situation
Level of education	Pearson Correlation	1	.400	-.350	-.100	.169	.059
	Sig. (2-tailed)		.286	.356	.798	.663	.879
	N	9	9	9	9	9	9
Year of experiences	Pearson Correlation	.400	1	-.500	.500	.308	.023
	Sig. (2-tailed)	.286		.170	.170	.421	.953
	N	9	9	9	9	9	9
Training course	Pearson Correlation	-.350	-.500	1	.125	.135	.260
	Sig. (2-tailed)	.356	.170		.749	.730	.500
	N	9	9	9	9	9	9
Occurrence of emergency cases	Pearson Correlation	-.100	.500	.125	1	.385	.533
	Sig. (2-tailed)	.798	.170	.749		.307	.140
	N	9	9	9	9	9	9
Total knowledge	Pearson Correlation	.169	.308	.135	.385	1	.657
	Sig. (2-tailed)	.663	.421	.730	.307		.054*
	N	9	9	9	9	9	9
Total knowledge for management of emergency situation	Pearson Correlation	.059	.023	.260	.533	.657	1
	Sig. (2-tailed)	.879	.953	.500	.140	.054*	
	N	9	9	9	9	9	9

P≤0.05 : significant

Table (8): presented that there were significant relationship between the effectiveness of instruction program and year of experiences of caregiver, and there were no significant relationship with

caregiver level of education, year of experiences, training course, and occurrence of emergency situation in Al Cyelakh geriatric home at P≤0.05 level

Table (8): Correlation between the effectiveness of Instruction Program and Caregiver level of Education, Year of Experiences, Training Course, and Occurrence of emergency cases in Al Cyelakh Geriatric Home.

Al Cyelakh		Level of education	Year of experiences	Training course	Occurrences of emergency cases	Total knowledge	knowledge for management
Level of education	Pearson Correlation	1	.272	-.089	.535	-.106	.105
	Sig. (2-tailed)		.447	.807	.111	.771	.774
	N	10	10	10	10	10	10
Year of experiences	Pearson Correlation	.272	1	-.509	.509	-.735*	-.294
	Sig. (2-tailed)	.447		.133	.133	.015(H.S)	.410
	N	10	10	10	10	10	10
Training course	Pearson Correlation	-.089	-.509	1	-.048	.198	.363
	Sig. (2-tailed)	.807	.133		.896	.583	.302
	N	10	10	10	10	10	10
Occurrences of emergency cases	Pearson Correlation	.535	.509	-.048	1	-.198	.606
	Sig. (2-tailed)	.111	.133	.896		.583	.063
	N	10	10	10	10	10	10
Total knowledge	Pearson Correlation	-.106	-.735*	.198	-.198	1	.552
	Sig. (2-tailed)	.771	.015(H.S.)	.583	.583		.098
	N	10	10	10	10	10	10
knowledge for management of emergency situation	Pearson Correlation	.105	-.294	.363	.606	.552	1
	Sig. (2-tailed)	.774	.410	.302	.063	.098	
	N	10	10	10	10	10	10

P<0.05: significant

Discussion

The present study conducted in two geriatric homes in Baghdad at Al-Russafa sector, on 20 caregiver who works in two homes, high percentage (60%), (40%) of them was nurses works in AL-Rashad and Al Cyelakh geriatric home respectively, (30%) percentage of them was a social researcher for both AL-Rashad and Al Cyelakh geriatric care home, (20%) was doctor work in Al Cyelakh GCH, (10%) doctor work in AL-Rashad. The nurse can be a key element

for a comprehensive care for elderly persons and a positive influence on the care [6]. The Socio-Demographic information for caregivers was a high percent (80%) of the study sample are males more than females in Al Cyelakh GCH, (% 60) males more than females in AL- Rashad GCH, and 40% of them at age group (39-48) years old, for both in Al Cyelakh and AL- Rashad GCH, (60%) of the caregiver have Bachelor's degree in Al Cyelakh GCH, and (40%) have collage degree in AL- Rashad GCH, (100 %) of

the caregiver were married in AL- Rashad GCH, (80%) of the caregiver was married in Al Cyelakh GCH, (60.0%) of the caregiver with Barely Sufficient income in Al Cyelakh GCH, and (100.0%) of the of the caregiver in Al Cyelakh from urban area (Table 2), (90%) in Al Cyelakh, (70%) AL- Rashad GCH have(1-10) years of experience's, (90%) in AL- Rashad, and (70%) in Al Cyelakh GCH not trained about emergency care (80%) in AL- Rashad , (70%) in Al Cyelakh have emergency cases in time of work shift , While the percentage of the common emergency cases in Al Cyelakh (71.4%) was dyspnea , (25%) of cases in AL- Rashad was dyspnea, chocking, fainting, and falls, and (85%), and 90% of case was saved in both geriatric. And the number of emergency cases monthly occur in both geriatric home is from (1-2) cases monthly. (Table3).

The evaluation of caregiver Knowledge about physiological changes and health problems of geriatric at pre – test was moderate according to total mean which of (1.5), (1.5), for Al Cyelakh, AL- Rashad geriatric care homes , and improved at post test for (2.75), (2.79) respectively. reported that a nursing home patients are at high risk of adverse events. These individuals are particularly vulnerable due to their age, cognitive impairment, complex multiple diseases, and non-specific presentation of illnesses [7][8]. There is also an increased risk of fall injuries and errors due to multiple medication and potential drug interactions , and they found that the use of eight or more drugs is frequent in Norwegian nursing homes, leading to increased risk of drug-drug interactions, which in turn may lead to falls, cognitive decline, medication-related problems, and even increased mortality .In nursing homes, physicians frequently prescribe drugs without a proper clinical evaluation of the patient, and staff may not be aware of this.

The study presented that the effectiveness of instruction program on caregiver related to emergency care of situation in geriatric home at pre and post- test was improved through the changes of total mean for domains of practical knowledge must be applied during emergency situation which of (1.2, 1.2) at pre- test to (1.7, 1.7) at post test for Al Cyelakh, AL- Rashad, respectively. (Table6) [9] mention that the people ages sixty-five and older are increasingly in need of emergency care. From 2010 to 2050, the rise in the US population of people ages sixty-five and older will more than double, and those ages eighty-five and older will more than triple. The demand for emergency care by older adults will be further magnified by the complexity of testing required for their multiple medical conditions, testing not available in outpatient offices, and barriers to care that they experience. These barriers include the shortage of primary care providers and geriatricians and financial, transportation, and functional limitations unique to older adults.

The present findings revealed that there were significant relationship between the effectiveness of instruction program and caregiver level of education, year of experiences, training course, and occurrences of emergency situation in AL- Rashad geriatric home, and there were significant relationship between the effectiveness of instruction program and year of experiences of caregiver, and there were no significant relationship with caregiver level of education, year of experiences, training course, and occurrence of emergency situation in Al Cyelakh geriatric home at $p \leq 0.05$ level. [10] describe the practitioners dealing with emergencies in older adults in the community must be able to recognize the atypical presentation of illness in older people and have a high index of suspicion that apparently innocent symptoms can be the presentation of serious underlying

pathology, and the assessment of the patient's social circumstances and emergency practitioners might sometimes need to make adjustments to ensure the safety of the patient in their surroundings if they are to be left subject to a delay in transfer. The combination of social and medical assessment, linked to knowledge of the services available locally will determine where the patient's care will be best delivered.

Conclusions

The present study concluded

- 1- The instruction program on caregiver knowledge is effective on their knowledge related to geriatric health problems, and the practices for emergency cases
- 2- There were significant relationship between the effectiveness of program and year of experiences of caregiver in Al Cyelakh geriatric home.

Recommendations: the study recommends

- 1- Increase training courses inside and outside Iraq and encourage employees to use safety measures to avoid injuries to the elderly
- 2- Preparation all advance medical facilities in geriatric homes to promote saving life
- 3- Route medical test and assessment for all guest in geriatric homes.

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