

The Effect of Psychosocial Counseling Sessions on Family Caregivers Living with Patients having Dementia

Marwa Abd El-Fattah Elsalamoni⁽¹⁾, Mona Hassan Abdel Aal⁽²⁾
Salwa Abbas Ali Hassan⁽³⁾ & Sorayia Ramadan Abd El-Fattah⁽⁴⁾

⁽¹⁾Assistant lecturer, Psychiatric and Mental Health Nursing, Faculty of Nursing- Zagazig University, ⁽²⁾Assistant Professor of Psychiatric and Mental Health Nursing, Faculty of Nursing, Ain Shams University, ⁽³⁾ Professor of Community Health Nursing, Faculty of Nursing- Zagazig University, ⁽⁴⁾ Professor of Psychiatric and Mental Health Nursing, Faculty of Nursing- Ain Shams University

Abstract:

Background: Each caregiver responds differently to his/her role, depending primarily on the emotional closeness that existed prior to assuming the responsibility, and the ability to adapt to the strain incumbent within the caregiver role over an extended period of time. **Aim:** This study was conducted to assess the effect of psychosocial counseling sessions on family caregivers living with patients having dementia. Quasi-experimental **design** was used in this study. **Setting :** the outpatient clinic of El-Abassia government hospital for mental health, and geriatric center in Ain shams university hospital. It included **sample** of 61 caregivers in pre counseling that decreased in post counseling to 49 caregivers. **The tools** of data collection; were interview questionnaire form, burden of the family caregivers, and adaptive coping scale. **The study results** showed that the majority of family members who got anxiety or depression were 95.1% in pre test, while 12.2% in post test. Implementation of counseling intervention sessions showed a statistically significantly improvement in family caregivers' knowledge about the disease. **The study concluded** that psychosocial counseling session for family caregiver of dementia patient improves caregiver knowledge and coping strategies increased post counseling. **The study recommended**, health education should conducted an every caregiver setting provide care for demented patient about knowledge about disease, and support family by provided them with educating caregivers about this target and explaining that they must take care of themselves is of utmost importance.

Keywords: Dementia, psychosocial counseling, coping strategies, family caregivers.

Introduction:

Dementia refers to a group of symptoms and not a specific disease. These symptoms affect "intellectual and social abilities severely enough to interfere with daily functioning". Though memory loss is often associated with dementia, dementia traditionally indicates problems with at least two brain functions. In addition to memory, damaged functions may include judgment and language.⁽¹⁾

Prevalence ratios for dementia subtypes in *Assiut-upper Egypt* study, were 2.2 for Alzheimer's disease (AD), 0.95 for multi-infarct dementia. 0.55 for mixed dementias and 0.45 for secondary dementias. Age-specific

prevalence tends to be doubled every 5 years. Occupation, level of education and residence, did not affect the prevalence or severity of dementia.⁽²⁾ Also a three phases cross sectional population-based study was carried out to screen 2000 subjects over 60 years old residents in 11 different location in *Assiut* governorate, *Egypt*. She found 90 demented subjects yielding a crude prevalence rate of 4.5%.⁽³⁾

Psychosocial care, the nurse focuses on the effects of stress in psychological or physiological illness, and on the intrapsychic and social functioning of individuals responding to stress. The nurse has a responsibility

to facilitate each individuals adaptations to his or her unique stresses by helping and supporting the person in his or her environment, level of wellness, and adjustment to the illness or condition. Identifying the individuals coping responses, maximizing strengths, and maintaining integrity will help the nurse meet this responsibility. ⁽⁴⁾

Caregiver role may result in periods of severe stress for the caregiver, which under certain condition, develops into symptoms of demoralization, depression, anxiety, grief or some form of physical disorder. Therefore, caregivers persons who have serious and persistent mental disorders, consumers must successfully cope with many challenging problems in order to provide good care. ⁽⁵⁾

Evidence that ability cope to with the patient's behavior, worry about the patient, and strain on the relationship with the patient were strongly related to subjective burden. Concentrating psychoeducational support on these elements by teaching relatives how to cope with patient's behavior and with feeling of worry and how to improve the relationship with the patient may improve the capacity of these groups to reduce burden. ⁽⁶⁾

Aim of the study:

The aim of the study was to assess the effect of psychosocial counseling sessions on family caregivers living with patients having dementia.

Hypothesis:

The psychosocial counseling session will lead to increase family knowledge about disease and improve the coping and reduce their burden.

Subjects and methods:

Research Design and Setting:

This study was conducted at the out patient clinic of El-Abassia government hospital for mental health, and geriatric center in Ain shams university hospital, using a quasi-experimental design.

Sample:

Subjects consist of 61 caregivers in pre counseling that decreased in post counseling to 49 caregivers were selected from the above mentioned two setting. The sample was recruited according to the following criteria, both sexes, the family caregiver and patient living in the same dwelling, the family caregiver identified himself or herself as the main provider of care for the patients.

Tools of data collection:

Three tools were used to collect the study data.

- **Socio-demographic characteristics:** This included information about the family caregivers as age, sex, level of education, duration of caring, degree of relationship with patient, their perception of patient's condition current patients complain and support system.
- **Burden of the Family Caregivers:** This tool was it contains 20 items, arranged into 6 categories to obtain details information about financial burden, (5) items, burden on routine family activities, (4) items, burden on leisure family activities, (3) items, burden on family interaction, contains (4) items, burden on physical and mental health of the family caregiver, (4) items, Scored rating was 3 point scale, severe burden (3) moderate burden (2), mild burden (1) and no burden (0). ⁽⁷⁾
- **Adaptive Coping Scale:** The Arabic version of this tool was developed by Hassan⁽⁸⁾ to assess

family caregivers' knowledge and practice toward demented patients and their needs.

Interview questionnaires consisted of questions in the form of multiple choice questions, which covered the knowledge of informal caregivers about Alzheimer's diseases and also included questions about practical knowledge related to care of patient with Alzheimer's disease.

- Alzheimer's Knowledge about changes among patients.
- Knowledge about coping patterns of family caregivers.
- Practices for behavior changes of patient with Alzheimer's disease.
- Problems as reported by caregivers of patient with Alzheimer's disease.
- Ways of solving problem.

Scoring system:

The rating was 3 point scale, severe burden (3) moderate burden (2), mild burden (1) and no burden (0). For the knowledge items, practices for behavior changes, problems as reported by caregivers of patient with Alzheimer's disease and ways of solving problem, a correct response was scored 1 and the incorrect zero. For each part, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score, and means and standard deviations were computed.

Tool validity:

The tools was revised by 5 experts in the field of psychiatric and mental health nursing and community health nursing department at the faculty of nursing, Cairo university and Zagazig university to test content validity and few modification was carried out according to their opinions.

Pilot study:

A pilot study was carried out on six caregivers and their patients, constituting about 10 percent of the total sample to test the feasibility and clarity of the tools, and to know the time needed for filling the tools. Minor changes were done in the tools bases on the results of the study. The tool was finalized. The pilot sample was not included in the main study.

Field work:

Once permission was granted to proceed with the study, the researchers visited the study setting and met with the caregivers having demented patients who fulfilled the inclusion criteria. Upon agreement, the researchers started the interview individually using the data collection tools. The questionnaire was read, explained, and choices were recorded by the researchers. The time consumed to fill out the full questionnaire sheet ranged from 30 to 45 minutes. Data collection lasted for 11 months, from the beginning of October 2010 to the end of December 2011.

The counseling sessions consists of 16 sessions:

The 1st session include during the initial session explained the aim of the study, determine the meeting time that was one time/week for each hospital and gave pre-assessment. **The 2nd session included** knowledge about dementia such as definition, and etiology. **From 3rd to 6th session** focus of this session was to explain signs and symptoms, and stages of Alzheimer disease, help caregivers to acquire knowledge related to treatment of Alzheimer disease, define characteristics of safety environment and discuss care related, discuss techniques of communication with caregivers having patients with dementia. From 7th to 13th session included problems related to disease and its care. From 14th to 15th included

methods of coping with these stresses, relaxation techniques, and religious coping. The 16th included global summarization of the session and termination of the counseling intervention sessions for caregivers, and give post assessment.

Administrative and ethical considerations:

Permissions to conduct the study were obtained from pertinent authorities. The researchers visited these two settings, met with directors, explained to them the study aim and procedures, and asked for their. The researcher explained the objectives of the study in simple and clear manner to be understood by eligible caregivers. A verbal consent was obtained by each participant who was informed about the rights to withdraw from the study at any time without giving any reason. Data were considered confidential and not be used outside this study without caregivers approval.

Statistical Analysis:

After data were collected, they were coded and transferred into specially design format to be suitable for computer feeding in. The statistical Package for Social Science (SPSS), version 14 was utilized for data analysis and tabulation. All the entered data were manually verified for the errors. Mean, Standard deviation, Chi square and fisher exact test (if expected value of Chi square test was less than 5) were used. The P- value < 0.05 was used as the cut of value for statistical significance.

Results:

Table (1): shows the caregiver general characteristics. It reveals that, the mean age of studied sample was 40.6 ± 8.8 years. 49.2% were illiterate, 27.9% and 23.0% had basic/intermediate and were highly

educated respectively. Also, 57.4% of caregivers were from rural areas. Concerning income most of caregivers had sufficient income (90.2%). The majority of caregivers (80.3%) were first degree relationship to patients

Table (2): demonstrates the changes of knowledge, and patients' condition as reported by caregivers. The only statistically significant difference detected was with know the cause of the disease in post program ($p < 0.001$). Meanwhile, none of the other changes in pre and post program were statistically significant.

Table (3): describes the caregiver burden for demented patients' pre-post counseling session it is evidence that the burden were high for all items pre-counseling. At post test all area have show statistically significant improvement ($p < 0.001$).

The caregiver changes in positive coping with own needs pre-post counseling is described in **table (4)**. Concerning the caregiver positive coping with all aspect of their needs was low before counseling except for coping with psychological needed (82.0%), while post counseling their was statistically significant increase in positive coping with their own needs ($P < 0.001$).

It is clear from **table (5)** .No changes in caregiver problem related disease pre-post counseling, but there was a significant improvement in their total measure to cope with stress related to patient illness ($p < 0.005$).

The relation between caregivers' high burden mean score and their demographic characteristics pre-post counseling illustrated in **table (6)**. According table the high mean burden score were present among caregiver age <40 years (86.5 ± 13.3). Male (87.6 ± 7.1), illiterate, come from rural area, had sufficient income, and first degree relative with patients (87.6 ± 7.1 , 88.4 ± 9.8 , 87.1 ± 11.4 , and 87.5 ± 11.5

respectively) pre counseling but post counseling it was observed decrease in level burden among caregiver.

Table (7): shows no statistically significant relations were found between pre/post counseling sessions and caregivers demographic characteristics except the relation between caregivers from second degree in pre counseling and coping score ($p=0.03$). The table also reveals increased mean coping among the study caregivers post counseling sessions regardless to their demographic characteristics.

Table (8): displays the correlation matrices among scores of coping, burden and caregivers' characteristics. According to the table, a significant negative correlation between caregivers' education and burden at pre counseling. As well a significant negative correlation between caregiver duration of care in years and coping score at pre counseling sessions.

Figure (1): illustrated that the majority of caregivers were female (70.5%).

Figure (2): indicated significant decreased in caregiver total level of burden post program from 95.1% to reach 16.3% post counseling this difference in reduction in total burden pre-post counseling was statistically significant ($p<0.001$).

Discussion:

Family caregivers are vital in providing informal care, or coordinating providers to assist with care to these individuals that are diagnosed as dementia. However, if caregivers are not properly supported through respite programs, the stress of caregiving can be detrimental to their physical, social, and emotional well-being.⁽⁹⁾

Concerning the age of dementia caregivers, the current study showed

that. More than, half of the sample ranged from forty or more years. Their age groups were responsible about their family members (children & husband) in addition to care of elderly with dementia. This result was in same line with the study conducting in Egypt by Hassan⁽⁸⁾ who found three fourth of family caregiver of dementia patient their aged blow 60 years.

Concerning education, the present study result revealed that there no differences between level of education and care given to demented patient. This means that caregivers with different levels of education could be responsible of caring for their ill relatives and they can provide help and support as a human being. This finding supported by Nummally⁽¹⁰⁾ in USA and Abd El Aziz⁽¹¹⁾ in Cairo they stated that the sense of caregiving responsibility and willingness to caregiver was not affected by the level of their education.

As regards sex of caregivers, the current study revealed that, the greatest percentage of caregivers were female. The higher percentage of female over male caregivers indicates that women nature as venture of their position and characteristics are taking the major responsibility of caring for their ill relatives. This finding agrees with Abd El-Kaw⁽¹²⁾ who conducting a study in Tanta university and who reported that the family caregivers of the elderly with AD were predominantly females (60%) either wife or daughter. In other studies carried out by Minnesota Department of Health⁽¹³⁾. About 60 percent of family and other unpaid caregivers of people with AD and other dementias are women

Regarding residence of caregivers, the present study showed that, the sample involved caregivers from urban and rural areas with higher

percentage of caregivers residing rural areas. This indicated that whatever the culture background of caregiver, it does not interfere with sense of responsibility to care for ill relative. This finding was in agreement with Refat ⁽¹⁴⁾ who conducting a study in Zagazig university and who found that insignificant difference in the prevalence of dementia between rural and urban peoples, although the prevalence rate was slightly higher among rural population.

Caregivers' knowledge about the dementia, the current study revealed that, there were significantly increased in post counseling sessions which could be attributed to that caregivers are keen to give their relatives as much as they could give due to emotional state and their kindness with their relatives. This is in agreement with Sisk ⁽¹⁵⁾ who conducting his study in Philadelphia, and reported. Hence, caregivers are in real need for educative support from the physician and nurse on how to care for the loved one who can no longer meet his/her own physical needs or activities of daily living, also Mohr, ⁽¹⁶⁾ in USA to summarize, the present study has shown that family caregivers do their best to learn and know about the disease to give good care to their relative.

According caregiver burden for demented patients' pre-post counseling session it is evidence that the burden were high for all items pre-counseling. At post test all area have show statistically significant improvement In congruence with Keltner et al. ⁽¹⁷⁾ who conducting a study at Kerala, India, they concluded that caring for the patient with dementia at home could be described as the toughest job in the world. Stress, exhaustion, inadequate self-care, and social isolation can commonly be cited. Usually, patient

care takes all the time of the caregiver, especially if the caregiver was the only one who gives the care. Hence, there is no time for him for other social needs.

Also the present study show improve in caregiver physical needed to be able to provide better physical care were statistically significance different between pre/post sessions, the results point to decreases in the percentages of these stresses after the sessions. This result goes in the same line with Hassan ⁽⁸⁾ who conducting a study in Ain Shams University, who found that, the most frequently reported coping mechanisms used by the present family caregivers, needed sleeping longer, and exercising. The findings are also consistent with Mohr ⁽¹⁶⁾ which has emphasized that family caregivers need to know how to meet the physical needs of their loved one as his/her self-care capabilities diminish.

Concerning caregiver's financial needs to be able to provide better care "health insurance, family sharing in expenses; increasing work to meet needs" the current study indicates that, a highly statistically significant difference was present between pre/post counseling sessions, This results is concomitant with Hassan ⁽¹⁸⁾, and Abd El-Fattah ⁽¹⁹⁾ who conducting a study in Zagazig University, and reporting that, the caregivers used sharing from others to provide needed supplies as the most coping methods used. This is due to increase need for daily supplies, such as special food and incontinence pads, that may add to the cost of caregiving.

Regarding caregiver's problems resulting from relative's illness, in the current study, there is not statistically significant difference between pre/post counseling sessions. This might be due to behavioral disturbances. These include agitation, wandering,

hallucination, delusion, suspiciousness, reversal of sleep-wake pattern, inappropriate sexual behavior, hostility, and aggressiveness. This result is in agreement with Hassan ⁽⁸⁾ which revealed that, the frequency of problems resulting illness experienced by caregivers and related to caring for AD patients are of great concern, sleep disorders were the most commonly reported of these problems.

The current study finding indicates that, highly statistically significant differences were present between pre/post counseling sessions regarding their means/resources that help relieve stress as "more belief in God, look for geriatric center, read relevant books, and consult physician" These results may reflect how the caregiver of patient feel hopeless toward loss of his ill relatives' confidence, which is of a major importance in the Egyptian culture. These results are consistent with Abd El-Aziz ⁽¹¹⁾ who concluded that the caregivers depend on God as a negative coping and consult the psychiatrists a positive one. In the same line, Hassan ⁽⁸⁾ stated that, family caregivers need for coping with dementia patients; their needs include having enough information about the disease and about patient care, and for more belief in God

As regards relation between sex of caregivers and burden experienced, the study finding revealed that no statistically significant relation was detected between pre/post sessions. This indicates that sharing caregiving responsibility between male and female caregiver is a matter that is not influenced by sex of the caregivers. The present study is contradicting with Hansell et al., ⁽²⁰⁾ who conducting a study in Philadelphia, who reported that there is a significant relationship between caregiver's gender and their

burden level because primary caretaking is often provided by female caregiver as mother, wife... etc., who experience different health problems more than others because they tend to angry with themselves or with others even when stress was minimal

The current study result reported that there was statistically significant relationship between caregiver's level education and their burden experienced. This means that less educated caregivers easily experienced depression more than highly educated caregivers who are able to adapt to different issues in caregiving situations more positively than the less educated caregivers. This result contradicted with Jones and Jones⁽²¹⁾; and Abd El-Aziz ⁽¹¹⁾ who found that there was not significant association between caregiver's level of education and their burden experienced

The study result showed that there are no significant relations between caregiver's coping abilities and their age and sex. Female caregivers had low coping in pre sessions which increased in post sessions. This could be due to that females used to tolerate multiple responsibilities; represented in home duties, working outside home and caring for children. These results are congruent with Abd El-Aziz⁽¹¹⁾ and Abd El-Kawy ⁽¹²⁾ who found that socio-demographic characteristics of caregivers as age, sex, occupation and type of relation did not influence their coping methods.

This result disagreed with Othman and Abd El-Rahman ⁽²²⁾ who conducting a study in Egypt and he found that there was a significant difference in coping abilities in relation to gender, as 40.6% of female caregivers had high abilities compared to 12.5% of males. As well, 18.8% of

males had low abilities compared to 62.5% of females respectively. This difference may be due to cultural difference between studied groups.

In relation to caregivers' residence and their coping methods, no statistically significant difference was proved in the current study; this may reflect that caring for relatives is not affected by living either in rural or urban areas. This result is not congruent with Gomez and Gomez⁽²³⁾ who conducting a study in London and who considered residence as one of the socio-demographic characteristics that may influence the coping methods of the caregivers. They also reported that caregivers in rural areas report greater burden than urban areas as lacking of facilities that affect their coping with their relatives' illness.

The finding of the present study revealed a statistically significant negative correlation between caregivers' burden and coping methods. This result is in congruent with Abd El-Aziz⁽¹¹⁾ who reported that positive significant correlation observed between family conflicts and coping methods recited to problem of illness "problems with other sex" and problems of activities of daily living. In similar study, Abd El-Kawy⁽¹²⁾ stated that there was a highly significant relation between coping and burden of caregivers who used problem focused coping strategies such as painful problem solving strategy.

Conclusion and recommendations:

The study proved that psychosocial counseling improved family knowledge about disease and lead to reduces family caregiver burden and improve their coping capabilities with the disease.

Based on the study findings it is recommended an appropriate

education, training and information for all health and social service professionals to ensure an effective and sensitive response to the needs of people with dementia and their careers. There must be a trained nurse who knows how to assist the caregiver to deal with his stressors and helps alienate and reduce the negative impact by teaching new skills to deal with stress in positive and productive manner. Increasing emphasis on social support as a factor enhancing adaptive coping, is essential as it provides the family with adequate support either from other relatives or professionals.

Table (1): The general characteristics of caregivers of demented patients (n=61)

Items	Frequency	Percent
Age (years):		
<40	33	54.1
40+	28	45.9
Range	22.0-57.0	
Mean±SD	40.6±8.8	
Education:		
▪ Illiterate	30	49.2
▪ Basic/intermediate	17	27.9
▪ High	14	23.0
Residence:		
▪ Urban	26	42.6
▪ Rural	35	57.4
Income:		
▪ Insufficient	6	9.8
▪ Sufficient	55	90.2
Relation to patient:		
▪ First degree	49	80.3
▪ Second degree	12	19.7

Table (2): Pre-post changes in caregivers' knowledge, and patients' condition

Changes in caregivers	Time				X ² Test	p-value
	Pre (n=61)		Post (n=49)			
	No.	%	No.	%		
Know the cause of the disease:						
▪ No	40	65.6	4	8.2	37.32	<0.001*
▪ Yes	21	34.4	45	91.8		
Have others sharing in patient treatment:						
▪ No	15	24.6	13	26.5	0.05	0.82
▪ Yes	46	75.4	36	73.5		
Patient state:						
▪ Stable	39	63.9	31	63.3	0.01	0.94
▪ Unstable	22	36.1	18	36.7		
Severity of patient condition:						
▪ Mild	17	27.9	15	30.6	0.13	0.94
▪ Moderate	29	47.5	23	46.9		
▪ Severe	15	24.6	11	22.4		

(*) Statistically significant at $p < 0.05$

(-) Test result not valid

Table (3): Pre-post changes in total burdens as reported by caregivers' of demented patients.

Types of burden	Time				X ² Test	p-value
	Pre (n=61)		Post (n=49)			
	No.	%	No.	%		
▪ Financial burden	49	80.3	38	77.6	0.13	0.72
▪ Family functioning	59	96.7	14	28.6	56.54	<0.001*
▪ Family recreational activities	59	96.7	9	18.4	70.68	<0.001*
▪ Family interactions	57	93.4	9	18.4	63.81	<0.001*
▪ Family physical health	59	96.7	10	20.4	67.68	<0.001*
▪ Family psychological health	44	72.1	5	10.2	42.18	<0.001*

(*) Statistically significant at $p < 0.05$

Table (4): The changes in caregivers' positive coping with their own needs pre-post counseling.

Positive coping regarding:	Time				X ² Test	p-value
	Pre (n=61)		Post (n=49)			
	No.	%	No.	%		
▪ Caregiver's physical needs to be able to provide better patient care (enough time for sleep, taking food regularly and sufficiently, enough time for personal care, time for practice and hobbies)	13	21.3	27	55.1	13.41	<0.001*
▪ Caregiver's social needs to be able to provide better patient care (nearby center for follow-up, opportunities for visit, finding clubs to care, attend meeting)	4	6.6	21	42.9	20.39	<0.001*
▪ Caregiver's psychological needs to be able to provide better patient care (ask other patient's families, relatives sharing in care, have picnics)	50	82.0	43	87.8	0.70	0.40
▪ Caregiver's financial needs to be able to provide better patient care (health insurance, family share in expenses, increase work to meet needs)	11	18.0	22	44.9	9.34	0.002*
▪ In case of feeling sad or helpless (think future is better, talk to others with same problem, look at previous life)	51	83.6	46	93.9	2.75	0.10

(*) Statistically significant at $p < 0.05$

Table (5): Caregiver's problems due to patient illness pre-post counseling

Items	Time				X ² Test	p-value
	Pre (n=61)		Post (n=49)			
	No.	%	No.	%		
▪ Caregiver's problems due to patient illness	57	93.4	46	93.9	Fisher	1.00
▪ Means/resources that help relieve stress (more belief in God, look for geriatric center, read relevant books, consult physician)	41	67.2	44	89.8	7.89	0.005*

Table (6): Relation between caregivers' high burden mean score and their demographic characteristics before and after the counseling sessions

Items	Before		After	
	Burden score (mean±SD)	Mann Whitney test (p-value)	Burden score (mean±SD)	Mann Whitney test (p-value)
Age (years):				
▪ <40	86.5±13.3	0.00	52.8±15.7	0.91
▪ 40+	86.8±12.7	0.97	47.3±9.3	0.34
Sex:				
▪ Male	87.6±7.1	0.28	47.8±9.0	0.02
▪ Female	86.2±14.8	0.60	50.6±13.9	0.90
Education:				
▪ Illiterate	89.5±7.1	H=6.30	46.5±9.0	H=4.03
▪ Basic/intermediate	88.4±12.7	0.04*	55.6±14.6	0.13
▪ High	78.4±19.1		49.2±15.5	
Residence:				
▪ Urban	84.3±16.2	0.47	50.2±13.0	0.36
▪ Rural	88.4±9.8	0.49	49.6±13.0	0.55
Income:				
▪ Insufficient	82.3±24.0	0.02	48.2±8.0	0.09
▪ Sufficient	87.1±11.4	0.89	50.1±13.4	0.77
Relation to patient:				
▪ First degree	87.5±11.5	0.37	50.4±13.1	0.98
▪ Second degree	83.3±17.8	0.54	48.4±12.7	0.32

(*) Statistically significant at $p < 0.05$

(H) Kruskal Wallis tes

Table (7): Relation between caregivers' coping score and their demographic characteristics before and after the counseling sessions

Items	Before		After	
	Coping score (mean±SD)	Mann Whitney test (p-value)	Coping score (mean±SD)	Mann Whitney test (p-value)
Age (years):				
▪ <40	42.9±5.6	2.45	60.0±6.8	1.55
▪ 40+	40.8±7.6	0.12	56.8±8.2	0.21
Sex:				
▪ Male	43.9±5.9	3.01	57.9±7.6	0.09
▪ Female	41.1±6.8	0.08	58.4±7.8	0.76
Education:				
▪ Illiterate	41.2±7.1	H=4.43	57.3±7.7	H=1.20
▪ Basic/intermediate	40.5±5.3	0.11	60.3±5.9	0.55
▪ High	45.1±6.5		57.7±9.7	
Residence:				
▪ Urban	40.8±6.9	1.89	58.9±7.6	0.22
▪ Rural	42.8±6.4	0.17	57.7±7.8	0.64
Income:				
▪ Insufficient	38.6±4.7	1.78	56.4±8.5	0.44
▪ Sufficient	42.3±6.8	0.18	58.5±7.6	0.51
Relation to patient:				
▪ First degree	42.7±6.4	4.56	58.9±6.9	0.34
▪ Second degree	38.8±7.0	0.03*	56±9.7	0.56

(*) Statistically significant at $p < 0.05$

(H) Kruskal Wallis test

Table (8): Correlation among score of coping, burden and caregivers characteristics before and after the counseling sessions

Items	Pearson correlation coefficient			
	Pre score		Post score	
	Burden	Coping	Burden	Coping
▪ Coping score	-.053		.072	
▪ Age	-.017	-.194	-.206	-.180
▪ Education	-.290*	.178	.189	.064
▪ Income	-.146	.048	-.013	.067
▪ Years of caregiving	.189	-.259*	.016	-.272
▪ Hours/week caregiving	.139	.090	-.158	.263

(*) Statistically significant at $p < 0.05$

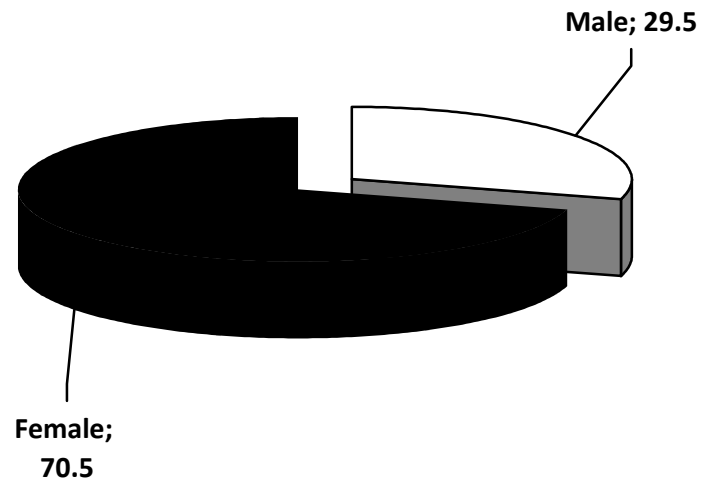


Figure (1): The general characteristics of caregivers of demented patients (n=61).

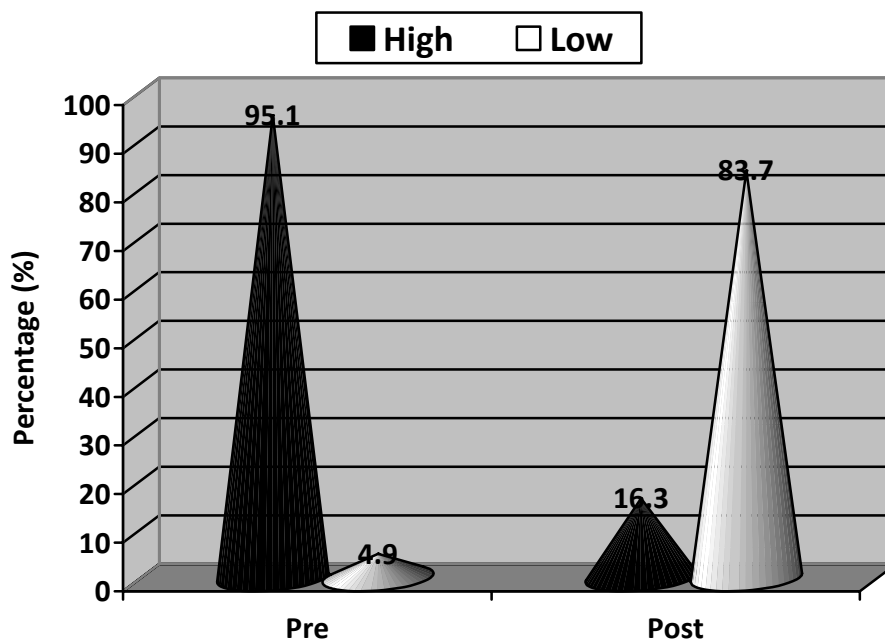


Figure (2): Total level of dementia's caregiver burden per-post counseling session.

References:

1. Alzheimer's Association: Caregiver stress: signs to watch for--steps to take. Chicago: Alzheimer's association. Accessed April 2010 at: [www.alz.org/ResourceCenter/FactSheets/Brochure_%20caregiver stress.pdf](http://www.alz.org/ResourceCenter/FactSheets/Brochure_%20caregiver%20stress.pdf). Date: 22/4/2010.
2. Farrag, A.: Prevalence of Alzheimer's disease and other dementing disorders. Unpublished MD. Thesis, Faculty of Medicine, Assiut Upper Egypt study: p. 6, 1998.
3. Omran, S.M.: Epidemiology of Alzheimer's disease and other cementing disorders in Assiut. MD. Thesis. Faculty of Medicine, Assiut University, 2001.
4. Gorman, L., Sultan, D., & Raines, M.: Psychosocial nursing handbook for the nonpsychiatric nurse. Baltimore, MD: Williams & Wilkins, 2011:711-715.
5. Perlick, H. Proctor, R., Martin, C., & Hewison, J.: When a little knowledge is a dangerous thing...: a study of carer's knowledge about dementia preferred coping style and psychological distress. *International Journal of Geriatric Psychiatry*; 2005, 17: 1133- 1139.
6. Cuijpers, N., and Stam, F.: The psychological consequences of learning a diagnosis of dementia: Three case examples. *Aging and Mental Health*; 2007 3: 179–183.
7. Pai, S., & Kapuire, R.: The Burden of the family of a psychiatric patient: development of an interview schedule. *British Journal of Psychiatry*; 1981, 138: 332 - 335.
8. Hassan, M A.: Effective nursing intervention for formal and informal caregivers for demented caregivers for demented patients. Unpublished MD. Thesis, Faculty of Nursing, Ain Shams University, 2003.
9. Son, A.: Latent growth models of the longitudinal effects of dementia care giving: a comparison of African American and white family caregivers. *Psychology & Aging*, 2007, 16 (3): 427-430.
10. Nummally, R.: Attitudes of registered nurses towards patients with severe dementia. *Journal of Clin-Nurs*, Jul, 2000, 8(4): 353-359.
11. Abd EL-Aziz, E.M.: Problems and coping methods among family caregivers of ill patient. Unpublished M.Sc.N. Thesis, Faculty of Nursing, Cairo University, 2002.
12. Abd El-Kawy, E.: Coping strategies for family caregivers of dementia patients. Unpublished D.N.Sc. Thesis, Faculty of Nursing, Tanta University, 2004.
13. Minnesota Department of Health: Minnesota behavioral risk factors surveillance system survey: Caregiver Module. North St. Paul, MN: Metropolitan Area Agency on Aging, 2010, (2): 87-95.
14. Refat, G. H.): Epidemiology study of dementia after retirement. Unpublished M. Sc. Thesis, Faculty of Medicine. Zgazig University. Research (www.afar.org) 2006.
15. Sisk, J.R.: Caregiver burden and health promotion. *International Journal Nursing; Studies*; 2000, 37: 37-43.
16. Mohr K.W.: Psychiatric- mental health nursing. 5th ed.; Lippincott, Williams and Wilkins, Awollers Kluver company: 2003, chapter 28, pp. 607-639.
17. Keltner, J., Backer, P., & Dunn.G.: Coping strategies for relatives of the mentally ill. Arlington, VA: National Alliance for the Mentally Ill, 2003, 39, no2: 160-166.
18. Hassan, M.A.: Assessment of psychosocial stress facing family caregiver of elderly patient with dementia. Unpublished M. Sc. Thesis, Faculty of Nursing, Ain Shams University, 1999.

19. Abd El-Fattah, M.: Role's conflict and coping strategies in caregivers of the patients with Alzheimer's disease. Unpublished M. Sc. N. Thesis, Faculty of Nursing Zagazig University, 2008.
20. Hansell, P., Huges, C., Calindor, G., & Wood, S.: The effect of a social support boosting intervention on stress, coping and social support in caregivers of chronically ill patient. *Nursing Research*; 2000, 47 (2): 79-86.
21. Jones, S. & Jones, P.: The Association between objective and subjective caregiver burden. *Archives of Psychiatric Nursing*; 1998, 10: 77-84.
22. Othman, O.A. and Abd El Rahman, N.H.: Burden and coping strategies among caregiver caring for demented person: *The New Egyptian Journal of Medicine* ; 1998, 19 (1): 41-49.
23. Gomez, G., & Gomez, E.: Maternal Thinking in Dementia Care. *Journal of Advanced Nursing*; 2005; 24: 431-438.

()

/ . ()
()

/ . . ()
/ .

()

()

()

:

:

:

:

:

:

:

:

:

: