

Effectiveness of Expressed Emotions Management Program on Feeling of Burden and Depressive Symptoms among Caregivers of Patients with Dementia

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Abstract

Background: Caregivers of patient with dementia have higher levels of burden and depressive symptoms; expressed emotion management program have great effect on reducing feeling of burden and depressive symptoms. **Aim of the study:** Evaluate the effect of expressed emotions management program on feeling of burden and depressive symptoms among caregivers of patient with dementia. **Research design:** A quasi-experimental design was utilized in this study. **Research Setting:** The study was conducted at the Psychiatric Mental Health Hospital in Benha City, Qalyubia Governorate, which is affiliated to General Secretariat of Mental Health in Cairo. **Research sample:** A purposive sample of 100 caregivers of patients with dementia. **Tools for data collection:** Four tools used (1): A structured interview questionnaire consisting of two parts: to assess socio-demographic data for caregivers and their patients. (2): Caregivers expressed emotions scale. (3): Zarit burden interview. (4): Beck depression inventory. **The result:** The main findings of this study revealed a marked decreasing in feeling of burden and depressive symptoms post program implementation with a highly statistically significance difference between pre and post program implementation among the studied caregivers. **Conclusion:** Expressed emotions management program have a marked improvement in feeling of burden and depressive symptoms among caregivers of patients with dementia. **Recommendation:** Expressed emotions management programs should be given for all family caregivers of dementia to provide proper information, psychological support, reduce negative expressed emotions and reduce feeling of burdens and depressive symptoms.

Keywords: Caregivers, Dementia, Depressive symptoms, Expressed emotions, Feeling of burden

Introduction

Dementia refers to disease process marked by progressive cognitive impairment in clear consciousness. Dementia involves multiple cognitive domains and cognitive deficit cause significant impairment in social and occupational functioning. Majority of people with dementia live in their own home and most of care is provided by family in developing countries as Egypt the family spend more time with the person to assisting with activities of daily living, provide

personal care and higher levels of supervision. Also, family members play an important role in bringing the patient in contact with the mental health care professional and providing financial as well as psychosocial support to the patient during the process of treatment (Vespa et al., 2021).

Dementia is a disorder which manifests as a set of related symptoms, which usually surfaces when the brain is damaged by injury or disease. These symptoms involve progressive impairments in memory, thinking,

and behavior, which negatively affects a person's ability to function and carry out everyday activities. The most common symptoms include emotional problems, difficulties with language, and decreased motivation (**Livingston et al., 2020**).

A diagnosis of dementia requires the observation of a change from a person's usual mental functioning, and a greater cognitive decline than what is caused by normal aging. Several diseases and injuries to the brain, such as a stroke, can give rise to dementia. However, the most common cause is Alzheimer's disease, a neurodegenerative disorder (**Mckeith et al., 2020**).

Causative subtypes of dementia may be based on a known disorder such as Parkinson's disease, Huntington's disease, vascular disease as vascular brain injury including stroke or many other medical conditions including human immunodeficiency virus. Subtypes may be based on various symptoms, possibly due to a neurodegenerative disorder as frontotemporal lobar degeneration or Lewy body disease. More than one type of dementia, known as mixed dementia, may exist together (**Radue et al., 2019**).

Elderly caregiving may consist of formal care and informal care. Formal care involves the services of community and medical partners, while informal care involves the support of family, friends, and local communities, but more often from spouses, adult children and other relatives. In most mild to medium cases of dementia, the caregiver is a family member, usually a spouse or adult child. The role of family caregivers has become more prevalent as care in the familiar surroundings of home may delay onset of some symptoms and postpone or eliminate the need for more professional and costly levels of care (**González et al., 2021**).

Individuals suffering from dementia are affected by a progressive and significant global deterioration and, consequently, might require longer assistance in the advanced stage of the illness. The illness is a great burden on the caregiver. Caregiver burden has been defined as the emotional strain and physical stress that occurs when caring for another person. Dementia ultimately has a significant effect on the caregivers and on social relationships in general. Caregiver burden comes out when the caregiver perceives the home care situation as a negative experience. Also, caregivers are not trained so, caring is a serious challenge and depressive for them. (**Nichols et al., 2019**).

Depression is a common psychological and emotional problem of caregivers caring for patients and suffering from caregiver burden, and this is especially more severe among caregivers of the elderly with dementia than other caregivers. Depression suffered by dementia caregivers increase due to the behavioral and psychological symptoms and problems that come from the cognitive and behavior disorders of dementia patients (**Ortega et al., 2022**).

Expressed emotion refers to physiological, behavioral, and psychological emotional episodes experienced toward an object, person, or event that create a state of readiness. There are three key elements of this definition. First, emotions are brief events or episodes. Second, emotions are directed toward someone or something. Third, emotions are experiences. They represent changes in a person's physiological conditions as well as changes in behavior, such as facial expression, voice tone, and eye movement (**Karger, 2018**).

Expressed emotion, is a measure of the family environment that is based on how the relatives of a psychiatric patient spontaneously talk about the patient. A high

Effectiveness of Expressed Emotions Management Program on Feeling of Burden and Depressive Symptoms among Caregivers of Patients with Dementia

level of EE in the home can worsen the prognosis in patients with mental illness. The three types of Expressed Emotion are compiled and a rating is given to the caregiver or relative that is either high or low. The higher EE shown to correlate with relapse (Ewise, 2019).

Psychiatric nurses might explain and clarify to the family the nature of patient's illness and how the patient feel from his point of view and why behave in this way are very essential to the caregiver to avoid misunderstanding of patient's problems and creating interpersonal conflict's (Hunter & Miller, 2016).

The family psychoeducation aims at reducing re-hospitalization and adhering to the treatment, and it aims to reduce the distress faced by family caregivers and improve patient-family relations and communication patterns (Qiu et al., 2019).

Significance of the study:

Dementia is currently the seventh leading cause of death worldwide. There is no known cure for dementia. Also, there are many measures that can improve the quality of life of people with dementia and their caregivers. Cognitive and behavioral interventions may be appropriate for treating associated symptoms of depression (Ortega et al., 2022). A high level of expressed emotion in the home can worsen the prognosis in patients with mental illness or act as a potential risk factor for the development of psychiatric disease. Higher degrees of expressed emotion in the environment of a patient have been empirically found to be robust predictors of relapse. It has also been investigated as a contributor to the progress of dementia. Interventions to improve outcomes include reducing contact with high-EE caregivers, and educating and supporting families can reduce high-EE behavior (Garcia et al., 2014).

Some evidence suggests that education and support for the person with dementia, as well as caregivers and family members, improves outcomes. Exercise programs are beneficial with respect to activities of daily living, and potentially improve dementia (Walsh et al., 2021). Hence this study will reduce feeling of burden and depressive symptoms among caregivers of patient with dementia through implementation of expressed emotions management program.

Aim of the study:

This study aimed to evaluate the effect of expressed emotions management program on feeling of burden and depressive symptoms among caregivers of patient with dementia.

Research hypothesis:

The expressed emotions management program will decrease feeling of burden and depressive symptoms among caregivers of patient with dementia.

Research design:

A quasi-experimental research design two groups (control group and study group) (pre/posttest) was utilized to achieve the aim of the study

Research Setting:

This study was conducted at out patients psychiatric and mental health hospital at Benha city, Qalyubia Governorate, which is affiliated to general secretariat of mental health in Cairo.

Research Subject:

A purposive sample of 100 caregiver's for patients with dementia who fulfill the following inclusion and exclusion criteria was been selected:

- Who agreed to participate in the study.
- Both sex.
- Living in the same dwelling with dementia patient.

- Who identified him/herself as the main provider of care for the patient with dementia.
- Free from psychiatric or neurological disorders.

Tools for data collection:

Tool (1): A Structured Interview

Questionnaire:

This tool was developed by the researcher based on scientific review of literatures and includes the following parts:

Part one: Socio-demographic data of the family caregivers as age, sex, marital status, educational level, job, monthly income and residence.

Part two: Socio-demographic data of the dementia patient such as caregiver accompanied with patient, person bear the expenses of the patient's treatment, suffering from disease other than dementia and if the answer is yes, what is the disease.

Tool (2) Caregiver Expressed Emotions Scale:

This scale was adapted from **Berksun, (1992)** to assess expressed emotion characteristics of family caregivers of older patient with dementia. This scale consist of 43 statement, divided into three parts, The hostility and criticism which composed of 21 items, over involvement which composed of 9 items and warmth and positive remarks which composed of 13 items.

Each item of the expressed emotion scale requires participants to respond on a 3-points Likert scale, ranging from 1 (always) to 2 (sometimes) and 3 (never). Except the part related to warmth and positive remarks that requires participants to respond on a 3-points Likert-type scale, ranging from 1 (never) to 2 (sometimes) and 3 (always).

Scoring system:

- Family caregiver with a total score reach 60% or more (78-129 degree) were considered to have low expressed emotion
- Family caregivers with less than 60% (43-77 degree) were considered to have high expressed emotion.

Tool (3): Zarit Burden Interview (ZBI):

This scale was adapted by **Zarit et al., (1980)** to assess the level of burden experienced by the family caregivers of older person with dementia. The ZBI contains a 19-items checklist divided into four parts, deteriorated social relationships which composed of 10 items, patient dependency which composed of 2 items, frustration which composed of 5 items and feeling anxious which composed of 2 items.

Each item of Zarit Burden Interview requires participants to respond on a 3-points Likert scale, ranging from 1 (always) to 2 (sometimes) and 3 (never).

Scoring system:

- Family caregivers with a total score reach 50% and more (29-57 degree) considered having low level of burdens.
- Family caregivers who got less than 50% (19-28 degree) otherwise considered having higher level of burdens.

Tool (4) Beck Depression Inventory:

This scale developed by **Beck et al., (1961)**, it consist of a 21-questions multiple-choice, validated measure that has been instrumental in leading to numerous diagnoses of depression, it is composed of items relating to symptoms of depression such as hopelessness and irritability, cognitions such as guilt or feelings of being punished, as well as physical symptoms such as fatigue, weight loss, and lack of interest in sex.

Scoring system:

- Total Score from 0-10 are considered normal.
- 11-16 are considered mild mood

Effectiveness of Expressed Emotions Management Program on Feeling of Burden and Depressive Symptoms among Caregivers of Patients with Dementia

disturbance.

- 17-20 are considered borderline clinical depression.
- 21-30 are considered moderate depression.
- 31-40 are considered severe depression.
- Over 40 are considered extreme depression.

Validity of tools:

Tools of the study were translated into Arabic language by the researcher and were tested for content validity by a jury of 5 experts in the field of psychiatric nursing who were review the tools for content accuracy and internal validity. They were judge the items for completeness and clarity, they check the relevance, coverage of the content and to ascertain the appropriateness of items for measuring what supposed to measure. All used tools were proved to be valid.

Reliability of tools:

The researcher was apply test retest reliability for testing the internal consistency of the tools. It was been done through the administration of the same tools to the same participants under similar conditions on two or more occasions. Scores from repeated testing were compared to test consistency of the result over time. It has reasonable reliability, the reliability of expressed emotion scale was 0.90, for Zarit burden interview was 0.87 and for Beck depression inventory was 0.97.

Pilot study

A pilot study was carried out on 10% of caregivers (10 caregivers) of patients with dementia to ascertain the clarity and applicability of the study tools, identify the time needed to them availability of sample, and then the necessary modifications was done according to the result of pilot study. All

caregivers participated in the pilot study was excluded from the study sample.

Ethical considerations:

- Acceptance from ethical committee and general secretariat of mental health was obtained before starting the research.
- Oral consent was obtained from each participant.
- Privacy and confidentiality was be assured.
- Nature of the study was not harmful to participant.
- The caregiver's right to accept or refuse participation at any time was be respected.

Field work

The study was done through four phase:

Phase one: Assessment phase:

The researcher started data collection by introducing herself to the caregivers. Tools of the study were distributed individually to the study subjects and were asked to fill the questionnaire in the presence of researcher for any clarification and filling the questionnaires ranged from 20-30 minutes. This phase aimed to determine the study subject's needs as a base line of management program. Brief description about the aim of the study and the type of questionnaire required to fill was given to each caregiver of the sample.

Phase two: Designing phase (development of the intervention program):

This phase include planning for expressed emotions management program based on the result obtained from the assessment tools and review of literature, through setting educational objects, preparing the management program and designing the methodology (hand out, power point and media), also the teaching place was be assessed and planned and booklet was be developed to be distributed to caregiver for enforcement and as a reference, which was

conducted in Arabic language to be easily understood by the caregivers and revised and approved by the supervisors to ascertain its content, appropriateness and applicability. Accordingly, the required modification and corrections were carried out.

The expressed emotions management program aimed to reduce feeling of burden and depressive symptoms among caregivers of patient with dementia. The management program consists of theoretical and practical sessions in which each one of them has set of general and specific objectives for each session

General objectives of the program:

At the end of expressed emotions management program the caregivers should be able to reduce feeling of burden and depressive symptoms.

Specific objectives:

At the end of expressed emotions management program the caregivers should gain theoretical knowledge & practices about:

Dementia like (concept, causes, types signs, symptoms, problems faced by patients with dementia and treatment for dementia).

Feeling of burden like (concept, causes, types, signs, symptoms and methods to reduce feeling of burden).

Depressive symptoms as (concept, causes, signs, symptoms, strategies for prevent depression, treatment of depression)

Expressed emotions as (concept, types, causes, symptoms, effect of expressed emotions on patients and caregivers, methods for control expressed emotions)

Apply steps to practice skills including (time management, relaxation technique, deep breathing, problem solving, self-dialogue, sports activities like walking, bed making,

wearing clothes, dental care and hand washing).

Phase three: Implementing phase:

The management program was implemented in 10 sessions, the first one is introductory session and performs (pre test) and three of them were theoretical sessions (basic information about dementia, knowledge about feeling burden and depressive symptom, knowledge about expressed emotion) and five of them were practical sessions (skills about decreasing negative expressed emotion, develop self-dialogue strategy, design personal plan for managing negative thought, train the caregiver to practice daily life skills, continue train the caregiver to practice daily life skills) and the final session was summary for all previous sessions and performs (post test).

Implementation of the program:

The studied caregivers classified into 5 subgroups each subgroup composed of (10) caregivers. Each sub-group attended 10 sessions; each session was about (30-90 minutes) these sessions were scheduled as 2 sessions per week for duration of 25 week, starting from April 2021 to October 2021 for all family caregivers under the study. The management program was carried out in the library of hospital on small group basis.

The researcher was the initiator, provider and teacher who encouraged the caregivers to participate in the discussion and practice activity through motivating them by reward or positive reinforcement and at the end of the program, the booklet were printed and distributed to the study sample.

Specifically:

- The theoretical session was implemented by using lecture, handout and group discussion to promote active involvement in the

Effectiveness of Expressed Emotions Management Program on Feeling of Burden and Depressive Symptoms among Caregivers of Patients with Dementia

discussion and asking the study caregivers to share their experiences of the real situation of life. Lecture was given in a clear, simple manner using attractive power-point presentation which prepared by the researcher in a simplified Arabic languages

-Lecture, group discussion were used as method of teaching as well as, handout, white paper and power-point was used as media of teaching.

-To ensure that caregivers understand the content of the program, each session was started with summary of what was given at the previous session and the objectives of the new session were mentioned taking into consideration using simple languages to suit all caregivers.

-In the practical sessions, the researcher used role play, demonstration, re-demonstration as method of teaching for practical skills. Also used lecture, video and group discussion. Role play exercise was carried out between caregivers themselves and between the caregivers and the researcher. Handout papers about simulated situations and scenario were distributed to all studied caregivers at the beginning of each session.

-The researcher allowed the caregivers to think critically and give wide range of their own responses to the different situations and analyzed each one, after that the researcher presented the most appropriate response at the end of each situation discussion and give rationale for each choice.

-The researcher also made a summary at the end of session and informed them about the time of the next session

Phase four: Evaluation phase:

Evaluation of outcome of the program was carried out by the researcher through post-test

after implementation of the program to estimate the effect of expressed emotion management program on caregivers feeling of burden and depressive symptoms of patients with dementia by using study tools.

Statistical analysis:

All data were collected, coded, tabulated and subjected to statistical analysis. Statistical analysis was performed by statistical package for social sciences (SPSS version 20.0). Descriptive statistics were applied in the form of mean and standard deviation for quantitative variables and frequency and percentages for qualitative variables. Qualitative categorical variables were compared using chi-square test. Statistical significance at $p\text{-value } p \leq 0.05$, and considered highly statistically significance at $p\text{-value } p \leq 0.001$.

Results:

Table (1): Illustrates that there is a highly statistical significant difference in the level of expressed emotions subscales (hostility and criticism, over involvement, warmth and positive remarks) between study group and control group post program implementation at $p\text{ value } < 0.01$.

Figure (1): Shows that more than three quarters (76.0%) of the study group have high level of expressed emotions preprogram implementation that decreased to less than one-third (28.0%) who have high level of expressed emotion post program implementation.

Table (2): Shows that there is a highly statistical significant difference in the level of feeling of burden subscales between study and control group post program implementation at $p\text{ value } < 0.01$.

Figure (2): Shows that more than three quarters (76.0%) of the study group have high

level of feeling of burden preprogram implementation which decreased to less than one third (26.0%) who have high feeling of burden post program implementation.

Table (3): Shows that there is a highly statistical significant difference in the level of depressive symptoms between study and control group post program implementation, at p value <0.01 .

Figure (3): Represents that one third of study group (32.0%) have moderate level of depression preprogram implementation, which decreased to (10.0%) who have moderate level of depression post program implementation.

Table (4): Illustrates that a highly statistically significant relation is found between the total expressed emotions of study group and their age, sex and educational level pre and post program implementation at p value <0.01 , while there is a statistically significant relation exist with their income pre and post program implementation at p value <0.05 . Also, there is no statistically significant relation is found with their marital status and job pre and post program implementation at p value >0.05 .

Table (5): Reveals a highly statistically significant positive correlation between total expressed emotions and both of total feeling of burden and total depressive symptoms of the study group post program implementation at p value $p<0.01$. Also, there is a highly statistically significant positive correlation between total feeling of burden and total depressive symptoms at p value $p<0.01$.

Effectiveness of Expressed Emotions Management Program on Feeling of Burden and Depressive Symptoms among Caregivers of Patients with Dementia

Table (1): Comparison between the level of expressed emotions subscales among the studied caregivers (study group and control group) post program.

Total level of expressed emotions subscales.	Study group (n=50)		Control group (n=50)		Chi-square	
	Post program		Post program			
	N	%	N	%	X ²	P-Value
Hostility and criticism						
Low level	37	74.0	15	30.0	9.087	0.007**
High level	13	26.0	35	70.0		
Over involvement						
Low level	35	70.0	11	22.0	10.444	0.003**
High level	15	30.0	39	78.0		
Warmth and positive remarks						
Low level	36	72.0	10	20.0	9.800	0.006**
High level	14	28.0	40	80.0		

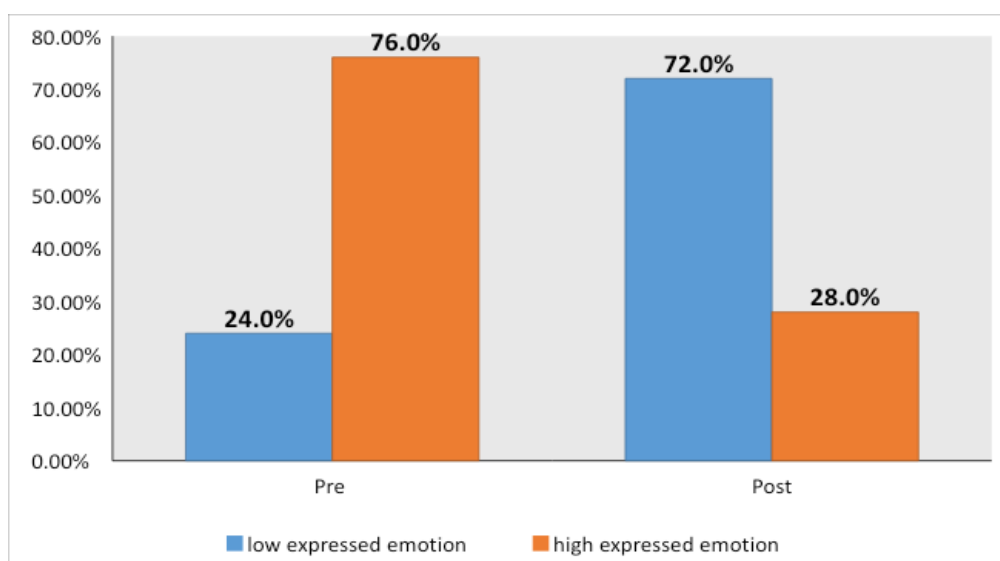


Figure (1): Distribution of the study group regarding to their level of expressed emotion at pre and post program implementation (n=50).

Table (2): Comparison between the levels of feeling of burden subscales among the studied caregivers (study group and control group) post program.

Total level of feeling of burden subscales.	Study group (n=50)		Control group (n=50)		Chi-square	
	Post program		Post program		X ²	P-Value
	N	%	N	%		
Deteriorated social relationship						
High level	14	28.0	38	76.0	11.212	0.001**
Low level	36	72.0	12	24.0		
Patient dependency						
High level	15	30.0	39	78.0	10.771	0.002**
Low level	35	70.0	11	22.0		
Frustration						
High level	13	26.0	40	80.0	9.145	0.005**
Low level	37	74.0	10	20.0		
Feeling anxious						
High level	14	28.0	33	66.0	10.300	0.003**
Low level	36	72.0	17	34.0		

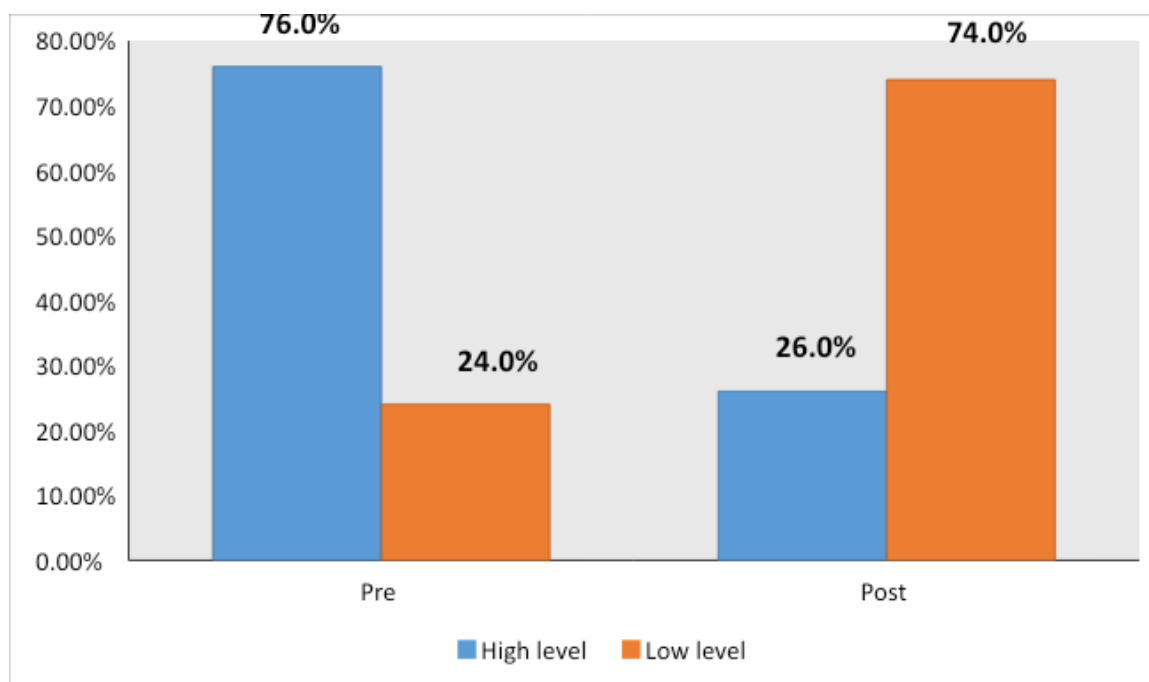


Figure (2): Distribution of the study group regarding to their levels of feeling of burden at pre and post program implementation (n=50).

Effectiveness of Expressed Emotions Management Program on Feeling of Burden and Depressive Symptoms among Caregivers of Patients with Dementia

Table (3): Comparison between the levels of depressive symptoms among the studied caregivers (study group and control group) post program implementation

Total level of depressive symptoms	Study group (n=50)		Control group (n=50)		Chi-square	
	Post program		Post program		X ²	P-Value
	N	%	N	%		
Normal	12	24.0	5	10.0	8.615	0.007**
Mild mood disturbance	21	42.0	7	14.0	13.999	0.000**
Borderline clinical depression	10	20.0	11	22.0	1.562	>0.05
Moderate depression	5	10.0	13	26.0	9.004	0.005**
Severe depression	2	4.0	10	20.0	10.826	0.003**
Extreme depression	0	0	4	8.0	9.111	0.004**

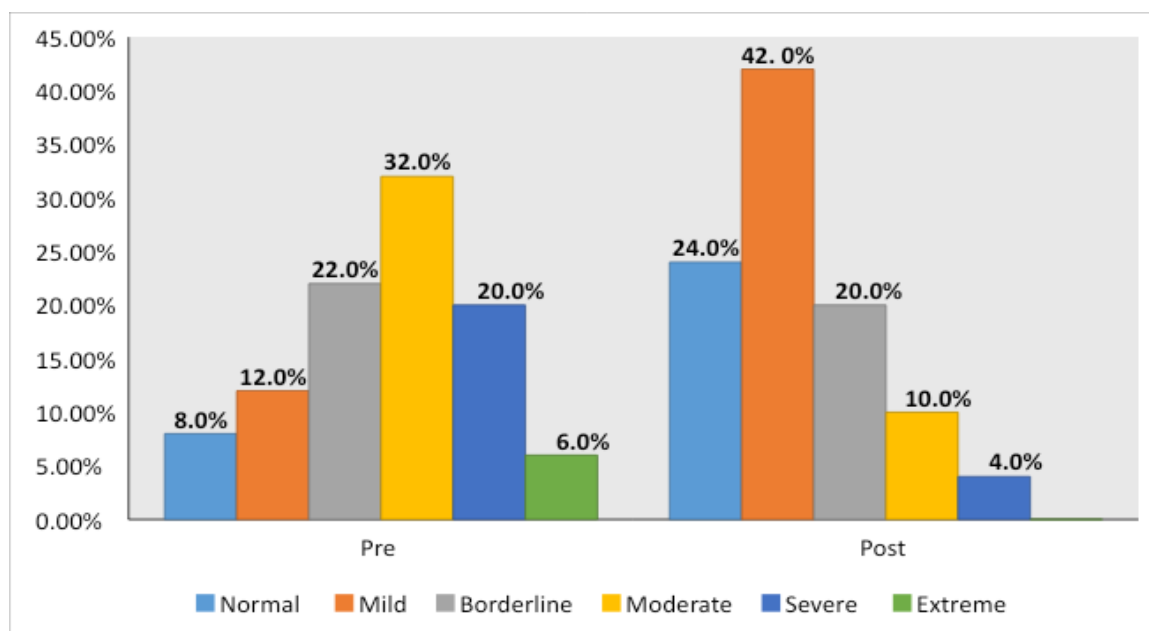


Figure (3): Distribution of the study group regarding to their levels of depressive symptoms at pre and post program implementation (n=50).

Table (4): Relationship between socio-demographic characteristics of study group and their total expressed emotions at pre and post program implementation.

socio-demographic characteristics of study group		Total expressed emotion pre program Study group(n=50)				X ²	P-Value	Total expressed emotion post program Study group (n=50)				X ²	P-Value
		Low level (n=12)		High level (n=38)				Low level (n=36)		High level (n=14)			
		N	%	N	%			N	%	N	%		
Age (years)	<20yrs.	0	0	4	10.5	7.901	.005**	0	0	4	28.6	10.231	.002**
	20-<30yrs.	1	8.3	15	39.5			8	22.2	8	57.2		
	30-<40yrs.	1	8.3	15	39.5			15	41.7	1	7.1		
	≥40 yrs.	10	83.4	4	10.5			13	36.1	1	7.1		
Sex	Male	1	8.3	31	81.6	9.102	.002**	20	55.6	12	85.7	6.965	.009**
	Female	11	91.7	7	18.4			16	44.4	2	14.3		
Marital status	Single	3	25.0	9	23.7	1.305	.059	7	19.4	5	35.7	1.546	.061
	Married	7	58.4	27	71.1			26	72.2	8	57.2		
	Divorced	1	8.3	1	2.6			2	5.6	0	0		
	Widowed	1	8.3	1	2.6			1	2.8	1	7.1		
Education	Illiterate	0	0	6	15.8	10.625	.001**	1	2.8	5	35.7	8.990	.005**
	Reads and write	0	0	2	5.3			1	2.8	1	7.1		
	Basic education	1	8.3	3	7.9			3	8.3	1	7.1		
	Secondary education	3	25.0	19	50.0			16	44.4	6	42.9		
	University education	8	66.7	8	21.0			15	41.7	1	7.1		
Job	Works	6	50.0	24	63.1	2.064	.052	28	77.8	2	14.3	1.402	.052
	Does not work	1	8.3	5	13.2			2	5.6	4	28.6		
	Pension	3	25.0	5	13.2			3	8.3	5	35.7		
	Housewife	2	16.7	4	10.5			3	8.3	3	21.4		
Income	Enough	5	41.6	15	39.5	4.560	.012*	18	50.0	2	14.3	3.132	.023*
	Suffices and increase	7	58.4	1	2.6			7	19.4	1	7.1		
	Not enough	0	0	22	57.9			11	30.6	11	78.6		

**Highly significant at p <0.01

Table (5): Correlation between total expressed emotion, feeling of burden and depressive symptoms among the study group post program implementation (n=50).

		Total expressed emotion	Total feeling of burden	Total depressive symptoms
Total expressed emotion	r			
	p			
Total feeling of burden	r	.797		
	p	.001**		
Total depressive symptoms	r	.822	.874	
	p	.000**	.000**	

Effectiveness of Expressed Emotions Management Program on Feeling of Burden and Depressive Symptoms among Caregivers of Patients with Dementia

Discussion:

Caregivers of people with dementia often called the invisible second patients. Caregivers face many psychological problem as burden, stress, depression and anxiety. The permanent burden of care giving to a patient with dementia is likely to generate negative expressed emotions toward patient. Negative expressed emotion are associated with high levels of burden and depression. Expressed emotion have effects on caregiving burdens and depressive symptoms among caregivers of patients with dementia (Wang et al., 2017).

The results of the current study revealed that there was a statistical significant difference in the level of expressed emotions subscales (hostility and criticism, over involvement, warmth and positive remarks) between (study group and control group) post program. This result could be due to the effect of comprehensive, illustrative and clear program and use of different teaching methods such as booklet, videos and posters which was within the need and interest of the participant. The result was supported by Tanaka et al., (2015) who studied “Burnout of long-term care facility employees: relationship with employees' expressed emotions toward dementia patients” and revealed that skill training program with education on dementia in the elderly and skills for coping with disruptive behavior are effective. This type of program is believed to be effective and there was significant improvement in caregivers' total expressed emotions subscales post intervention compared with pre-program conduction.

Regarding the total level of expressed emotion of study group at pre and post program implementation, the current study revealed that more than three quarters of the study group have high level of expressed emotion preprogram implementation that decreased to

less than one-third post program implementation. From the researcher point of view, these results might be due to the management program which helped the caregivers to know more about the dementia, ways of effective communication and coping skills to dealing with the patients, and their symptoms such as (time management, relaxation technique, deep breathing, problem solving, and self-dialogue). All of that leads to decreasing in expression of negative emotions toward the patient.

The study was congruent with Ewais et al., (2019) who studied “Effect of expressed emotion management program on caregiver's burdens of patients with dementia” and revealed that nearly three quarters of studied family caregivers had high expressed emotion at pre intervention, this percentage decreased to slightly more than one quarter post intervention.

The result of the present study also illustrated that there was a highly statistically significant difference in the level of feeling of burden subscales between study and control group post program implementation. From the researcher point of view, this could be related to the effect of well-organized educational program for study group on revealing how to reduce care-burden through certain activities for example, the caregivers should organize to share another person in patients care, discuss feeling of anxiety and make a time for self-socialization by meeting with friends and relatives, also participate in enjoyment activity to reduce the frustration. So that there was significant reduction in burdens subscales such as deteriorated social relationship and patient dependency post program implementation. The result was congruent with Egan et al., (2018) who studied “Online training and support programs designed to improve mental health and reduce burden among caregivers of people

with dementia” and revealed that there was significant reduction in care-burden subscales among dementia patients post program implication.

Regarding the total levels of feeling of burden among study group at pre and post program implementation, the results of the current study revealed that more than three quarters of the study group had high level of feeling of burden pre-program implementation which decreased to less than one third post-program implementation. From the researcher point of view, this could be due to the effect of program on reducing care burden among studied caregiver. The result was agreed with **Frias et al., (2020)** who studied “Effectiveness of a psych educational intervention for caregivers of people with dementia with regard to burden, anxiety and depression” the result revealed that there was significant improvement in caregiver feeling of burden post intervention by develop problem-solving skills among study group and facilitate their social support. Technology-based interventions significantly affect burden while group-based Interventions affect anxiety, depression, insomnia and burden and quality of life and self-efficacy.

Concerning the comparison between the study group and control group regarding to their levels of depressive symptoms post program implementation, the result illustrated that there was a highly statistically significant difference in the level of depressive symptoms between study and control group post program implementation. From the researcher point of view, this could be related to the effect of expressed emotion program by using various learning approach such as problem-solving approach that used in group sessions, with the intention of focusing on how to solve burden of care and daily life challenges. Moreover, the comprehensive program directed at how to reduce depressive symptoms by using

relaxation technique, deep breathing, problem solving and walking sports. The result was congruent with **Bjorge et al., (2019)** who studied “The effect of psychosocial support on caregivers’ perceived criticism and emotional over-involvement of persons with dementia: an assessor-blinded randomized controlled trial” and revealed that there was statistically significant difference between studied caregivers regarding depressive symptoms. Conversely, the study was incongruent with **Lee et al., (2020)** who studied “Effective interventions for depressive symptoms among caregivers of people with dementia” and illustrated that non-significant effects related to depressive symptoms among caregivers of patients with dementia. The difference between studies might be due to the severity of symptoms and progressed level of dementia that increase the burden of care.

Concerning the total levels of depressive symptoms among study group pre and post program implementation, result revealed that about one third of study group had moderate level of depression preprogram implementation, which decreased to the minority of them post program implementation. From the researcher point of view, this could be related to the effect of program session for caregivers about how to cope and manage depressive symptoms and sense of burden. The study was congruent with **Terayama et al., (2018)** who studied “Caregivers’ education decreases depression symptoms and burden in caregivers of patients with dementia” and revealed that there was statistically significant reduction in caregivers' depressive symptoms. More than one third of them had moderate level of depression that decreased to the minority of them post intervention they concluded that providing education to caregivers of dementia patients may hence result in beneficial effects for both the patients and their caregivers and should be widely used in dementia care.

Effectiveness of Expressed Emotions Management Program on Feeling of Burden and Depressive Symptoms among Caregivers of Patients with Dementia

Concerning the relationship between socio-demographic characteristics of study group and their total expressed emotions at pre and post program implementation, the result showed that there was a highly statistically significant relation between the total expressed emotions of study group and their age, sex, family income and educational level pre and post program implementation. From the researcher point of view, these results might be due to that young people from 30 to 40 years old learn during program sessions to use their emotions in practicing a hobby or sport to reduce the things that provoke their expressed emotions and female face lower requirements and expenses than male which may influence the direction of the expressed emotions. Regarding the caregivers' education, those with university educational level can manage their time as well as they have more ability to control their expressed emotions because they have more response to receiving new information and skill during program sessions.

The study was congruent with **Ewais et al., (2019)** who studied "Effect of expressed emotions management program on caregiver's burdens of patients with dementia" and revealed that there was statistically significant relation between caregivers' demographic characteristics such as age, gender, family income and their total expressed emotions. On other hand, these results contradicted with the study by **Knippenberg et al., (2018)**, entitled "Emotional reactivity to daily life stress in spousal caregivers of people with dementia in Germany", which emphasized that, age, gender, occupation, income and care intensity didn't impact on caregivers' emotional reactivity to daily life stress. The difference between studies might be due to the nature of the factors that effect on the expressed emotions differs from country to country. In some countries the caregiver internal

characteristics, such as sense of competence, mastery, and coping strategies, may play important role in determine the level of their expressed emotions.

Regarding the correlation between total expressed emotions, feeling of burden and depressive symptoms among the study group post program, the result of the current study illustrated that there was a highly statistically significant positive correlation between total expressed emotion and both of total feeling of burden and total depressive symptoms of the study group post program implementation. Also, there was a highly statistically significant positive correlation between total feeling of burden and total depressive symptoms. From the researcher point of view this could be interpreted that the program was conducted and affected the caregivers in reduction of expressed emotion also, learn caregivers to feel more empathetic with patients' condition and caregivers learn skills to make schedule and organize their activities of daily living so it helps reduce the feeling of burden and consequently accept patients health condition, act accordingly to decrease the depressive symptoms.

The study was congruent with **Frias et al., (2020)** who studied "Effectiveness of a psychoeducational intervention for caregivers of people with dementia with regard to burden, anxiety and depression" and revealed that there was a highly statistically significant correlation between studied variables (Expressed emotion, depressive symptoms and feeling of burden) among the caregivers.

Conclusion:

There was a highly statistically significance difference between pre and post program implementation among the studied caregivers, post program implementation than preprogram. These findings confirmed the effectiveness role of expressed emotions

management program in decreasing feeling of burden and depressive symptoms among caregivers of patient with dementia. This conclusion leads to the acceptance of the study hypothesis that the expressed emotions management program has decreases feeling of burden and depressive symptoms among caregivers of patients with dementia.

Recommendations:

1. Designing a continuous expressed emotion management program for all family caregivers in psychiatric hospitals to provide proper information and psychological support, reduce negative expressed emotions and reduce feeling of burdens and depressive symptoms.
2. Assertiveness skill training to caregivers should be given to them to teaching them new skills regarding how to express their negative thoughts and emotions in positive and productive manner.
3. Stress management training should be given to caregivers to reduce their negative thoughts and emotions and cope in positive and productive manner.
4. Further studies for larger sample size should be done to generalize the result.

References:

- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961).** An inventory for measuring depression. *Archives of General Psychiatry*; 4(3), Pp:561–571.
- Berksun, O.E. (1992).** Family factor in schizophrenia: Development and adaptation of expressed emotion scale. Postgraduate Thesis, University of Ankara. (Turkish).
- Bjorge, H., Kvaal, K. & Ulstein, I. (2019).** The effect of psychosocial support on caregivers' perceived criticism and emotional over-involvement of persons with dementia: An assessor-blinded randomized controlled trial. *BMC Health Serv Res*; 19 (2), Pp:744
- Egan, K. J., Pinto-Bruno, Á. C., Bighelli, I., Berg-Weger, M., van Straten, A., Albanese, E., & Pot, A. M. (2018).** Online training and support programs designed to improve mental health and reduce burden among caregivers of people with dementia: a systematic review. *Journal of the American medical directors association*, 19(3); Pp: 200-206.
- Ewais, H. S., Osman, O. A. B., & Fahmy, A. M. (2019).** Effect of expressed emotion management program on caregiver's burdens of patients with dementia.
- Frias, C., Garcia-Pascual, M., Montoro, M., Ribas, N., Risco, E., & Zabalegui, A. (2020).** Effectiveness of psychoeducational intervention for caregivers of people with regard to burden, anxiety and depression, a systematic review, *Journal of Advanced Nursing*; 76 (3), Pp: 787– 802.
- Garcia, J., Espinosa, L., & Martinez, M. (2014).** "Can parent training for parents with high levels of expressed emotion have a positive effect on their child's social anxiety improvement?". *Journal of Anxiety Disorders*; 28 (8): 812–822.
- González, E., Ballesteros, J., Rueda, J., Santos-Zorrozúa, B., Solà, I., & McCleery, J. (2021).** "Remotely delivered information, training and support for informal caregivers of people with dementia". *Cochrane Database of Systematic Reviews*.
- Hunter, S., & Miller, C. (2016).** Miller's nursing for wellness in older adults. North Ryde, Australia: Lippincott Williams & Wilkins Pty Ltd Interventions for caregivers of patients with dementia; 42(6) Pp:300-314.
- Karger, C.R. (2018).** Emotional experience in patients with advanced Alzheimer's disease from the perspective of families, professional caregivers, physicians, and scientists. *Aging Mental Health*.; 22 (3):316-322.
- Knippenberg, R., Vugt, M., Ponds, R., Verhey, F., & Germeys, I. (2018).** Emotional reactivity to daily life stress in spousal caregivers of people with dementia:

Effectiveness of Expressed Emotions Management Program on Feeling of Burden and Depressive Symptoms among Caregivers of Patients with Dementia

An experience sampling study, PLoS ONE, 13 (4), Pp: 66-70.

Lee, M., Ryoo, J. H., Chung, M., Anderson, J. G., Rose, K., & Williams, I. C. (2020). Effective interventions for depressive symptoms among caregivers of people with dementia: A systematic review and meta-analysis. *Dementia*, 19(7), 2368-2398.

Livingston, G., Huntley, J., & Sommerlad, A. (2020). Dementia prevention, intervention, and care. Report of the Lancet Commission; 396 (10248), Pp: 413–446.

McKeith, I.G., Ferman, T.J., & Thomas, A.J. (2020). Research criteria for the diagnosis of prodromal dementia with Lewy bodies. *Neurology (Review)*; 94 (17), Pp: 743–755.

Nichols, E., Szoek, C.E., Vollset, S.E, Abbasi, N., Abd-Allah, F., Abdela, J. (2019). "Global, regional, and national burden of Alzheimer's disease and other dementias, A systematic analysis for the global burden of disease study 2016". *The Lancet. Neurology*. 18 (1) Pp: 88–106.

Ortega, V., Leung, P., Del-Pino-Casado, R., Qazi, A., Orrell, M., Spector, A. E., Methley, A.M. (2022). "Psychological treatments for depression and anxiety in dementia and mild cognitive impairment". *Cochrane Database of Systematic Reviews*. (4), Pp:125.

Qiu, D., Hu, M., Yu, Y., Tang, B., & Xiao, S. (2019). Acceptability of psychosocial interventions for dementia caregivers, A systematic review, *BMC Psychiatry*; 19(23).

Radue, R., Walaszek, A., Asthana, S. (2019). "Neuropsychiatric symptoms in dementia". *Handbook of Clinical Neurology*; 167. Pp: 437–454.

Reuben, D. B., Tan, Z. S., Romero, T., Wenger, N. S., Keeler, E., & Jennings, L.

A. (2019). Patient and caregiver benefit from a comprehensive dementia care program, 1year results from the UCLA Alzheimer's and dementia care program. *Journal of the American Geriatrics Society*, 67(11) Pp: 2267-2273.

Tanaka, K., Iso, N., Sagari, A., Tokunaga, A., Iwanaga, R., Honda, S., & Tanaka, G. (2015). Burnout of long-term care facility employees: Relationship with employees' expressed emotion toward patients. *International Journal of Gerontology*; 9(3), Pp:161-165.

Terayama, H., Sakurai, H., Namioka, N., Jaime, R., Otakeguchi, K., Fukasawa, R., & Hanyu, H. (2018). Caregivers' education decreases depression symptoms and burden in caregivers of patients with dementia. *Psychogeriatrics*, 18(5), Pp: 327-333.

Vespa, A., Spatuzzi, R., Fabbietti, P., Penna, M., & Giulietti, M. V. (2021). Association between care burden, depression and personality traits in Alzheimer's caregiver: a pilot study. *PloS one*, 16(9).

Walsh, S.C., Murphy, E., Devane, D., Sampson, E.L., Connolly, S., Carney, P., & O'Shea, E. (2021). "Palliative care interventions in advanced dementia". *The Cochrane Database of Systematic Reviews*;(9)

Wang, X., Chen, Q., & Yang, M., (2017). Effect of caregivers' expressed emotion on the care burden and re-hospitalization rate of schizophrenia, *Patient Prefer Adherence*; 6(11), Pp:1505-1511,

Zarit, S. H., Reever, K. E., & Back-Peterson, J. (1980). Relatives of the impaired elderly: Correlates of feelings of burden. *Gerontologist*; 20(6), Pp: 649-655.

تأثير برنامج التحكم في التعبيرات الانفعالية علي الإحساس بالعبئ وأعراض الاكتئاب لدى القانمين علي رعاية مرضى الخرف

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إن مقدمو الرعاية لمرضى الخرف لديهم مستويات أعلى من الإحساس بالعبئ وأعراض الاكتئاب. برنامج التحكم في التعبيرات الانفعالية له تأثير كبير على تقليل الشعور بالعبئ وأعراض الاكتئاب. لذلك هدفت الدراسة إلي تقييم تأثير برنامج التحكم في التعبيرات الانفعالية على الإحساس بالعبئ وأعراض الاكتئاب لدى مقدمي الرعاية لمرضى الخرف. وقد أجريت الدراسة بمستشفى الصحة النفسية بمدينة بنها بمحافظة القليوبية التابع للأمانة العامة للصحة النفسية بالقاهرة. وقد تم أخذ عينة هادفة من 100 من مقدمي الرعاية لمرضى الخرف. وقد تم استخدام أدوات جمع البيانات حيث كشفت النتائج الرئيسية لهذه الدراسة انخفاضاً ملحوظاً في الشعور بالعبئ وأعراض الاكتئاب بعد تنفيذ البرنامج مع وجود فرق ذو دلالة إحصائية عالية بين تنفيذ البرنامج قبل وبعد تنفيذ البرنامج بين مقدمي الرعاية المدروسين. واوصت الدراسة بأنه يجب أن يتم تقديم برامج التحكم في التعبيرات الانفعالية لجميع مقدمي الرعاية لمرضى الخرف لتوفير المعلومات المناسبة والدعم النفسي وتقليل المشاعر السلبية وتقليل الشعور بالأعباء وأعراض الاكتئاب.