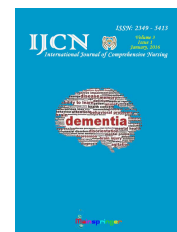




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Effectiveness of Psychological Interventions on Level of Burden Among Caregivers of Clients With Dementia in Selected Villages, Thiruvallur District – A Pre Experimental Study

Nandhini B¹, Jayanthi P^{2*}, Ciby Jose³, Kanchana S⁴ and Celina D⁵

¹M.Sc (N) Student 2011-2013 Batch, Omayal Achi College of Nursing, Chennai.

²Research Guide/Professor, Omayal Achi College of Nursing, Chennai.

³Principal, Venkateswara Nursing College, Chennai.

⁴Principal, Omayal Achi College of Nursing, Chennai.

⁵Vice Principal, Omayal Achi College of Nursing, Chennai.

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ABSTRACT

Background: Caregivers play a critical role in all stages of care for persons with dementia, including diagnosis, treatment and management. Providing care for a person with dementia makes caregivers face many challenges both physically and mentally. **Objective:** To assess the effectiveness of psychological interventions on level of burden among caregivers of clients with dementia. **Participants & Setting:** 60 caregivers who were residing in Veerapuram village, Thiruvallur district, Tamil Nadu. **Design:** Pre-experimental one group pre-test and post-test design. **Material & Methods:** Samples were selected by purposive sampling technique. Caregiver's burden was assessed by using modified burden assessment scale. Samples are divided into 4 groups and psychological interventions were provided for 15 days. **Results:** The total mean score in the pre test was 37.21 with SD of 2.12 and post test was 27.42 with SD of 2.47 ($t = 25.009, p < 0.001$) which shows highly significant difference between pre and post test level of burden among caregivers of clients with dementia. **Conclusion:** The study concluded that psychological interventions had a significant impact on the reduction of level of burden among caregivers of clients with dementia.

Introduction

Dementia is an irreversible, progressive brain disease. Personality changes may also occur in dementia. This change affects their physical, social and emotional life as well as the lives of those around them. Epidemiological studies were conducted in India and report stated that 3.7 million people aged over 60yrs have dementia (2.1 million women and 1.5 million men). The prevalence of dementia increases steadily with age and higher prevalence was seen among older women than men. The younger age groups of 60 – 75 years are expected to increase steadily over time^[1].

Caregivers are “the people who provide care to the person who had illness and cannot perform day to day activities”. Caring for loved one with dementia possess many challenges to the families and caregivers. Family caregivers of people with dementia often called the invisible second patient are critical to the quality of life of the care recipients. The effects of being a family caregiver, though sometimes positive, are generally negative, with high rates of burden and psychological morbidity as well as social isolation, physical ill- health and financial burden. Care givers are vulnerable to adverse effects like overburden, depression, and stress. Numerous studies report that caring for a person with

dementia is more stressful than caring for person with a physical disability^[2].

Caregivers play a critical role in all stages of care for persons with dementia, including diagnosis, treatment and management. Providing care for a person with dementia faces many challenges both mentally and physically such as depression, anger, frustration, fatigue, isolation, financial burden, excessive stress, irritability and relationship conflicts often these challenges affects the caregivers mental health^[3].

The Investigator and The Department of Mental Health Nursing had conducted survey on dementia in the Village adopted by Omayal Achi Community Health Centre, Arrakampakkam, Thiruvallur District, Tamil Nadu in the year September 2011 and found that majority of elderly had dementia and also caregivers had increased burden in taking care of clients with dementia. The finding of the survey showed that prevalence rate was high in Veerapuram village that made the investigator to do the study at Veerapuram village. Hence, the investigator undertook the study on the “Psychological interventions on level of burden among caregivers of clients with dementia”.

*Corresponding author.

Email address: jayanthiarul2011@gmail.com

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Statement of the problem

A pre experimental study to assess the effectiveness of psychological interventions on level of burden among caregivers of clients with dementia in selected villages, Thiruvallur District, Chennai.

Objective

To assess the effectiveness of psychological interventions on level of burden among caregivers of clients with dementia.

To associate selected demographic variables with their mean differed level of burden score among caregivers of clients with dementia.

Null Hypotheses:

NH₁: There is no significant difference between pre and post test level of burden among caregivers of clients with dementia at $p < 0.001$.

NH₂: There is no significant association between mean differed burden score among caregivers of clients with dementia and their selected demographic variables at $p < 0.001$.

Materials and Methods

Quantitative Approach was used with Pre-experimental one group pre-test and post-test design. Independent Variable was Psychological Interventions; Dependent Variable was Level of burden among caregivers of clients with dementia. The study was conducted in Veerapuram Village, Thiruvallur district, adopted by Omayal Achi Community Health Centre. The study sample comprised of caregivers of clients with dementia who fulfilled the inclusion criteria such as who was providing care to the client with dementia for more than 6 months, who are available during the study period and also who can understand Tamil/ English and willing to participate in the study after informed consent. Caregivers with sensory impairment, who are neighbours and paid by the clients and their relatives and who were below the age of 20 years were excluded for the study. Non probability purposive sampling technique was used to select the study samples. 60 caregivers of clients with dementia participated in the study.

Development and description of the tool

The tool for the data collection consisted of two parts.

Part A- Data collection tool which had **Section A** which dealt with demographic variables of caregivers of clients with dementia such as age, gender, relationship, religion, marital status, educational status, occupational status, monthly income, duration of care, type of family and living station. **Section B** consisted of Modified Burden Assessment Scale on a 3 point scale of "NEVER-0", "OCCASIONAL-1" and "ALWAYS-2" to identify the level of burden^{14,51}. Table 1 shows the domains and the number of items of the tool and table 2 shows the scoring and interpretation of the tool.

Part B consisted of the Intervention tool - Psychological interventions prepared by the investigator which included:

1. Physical domain – Lecture on home care management of dementia and booklet on home care management of dementia was given.

2. Psychological domain – Deep breathing exercise was demonstrated and reinforced.

3. Social domain – Recreational activities - music (old & melody songs) and fun time activity (spot difference & painting).

4. Financial domain – Cost effective health care service resources was communicated through the booklet to the caregivers of clients with dementia.

Procedure for data collection

The investigator obtained formal permission from The Principal, Omayal Achi College of Nursing and The President, Veerapuram village, Thiruvallur district. The investigator met the samples together in their own residence and brief explanation was given regarding the purpose of the study and consent was obtained from them. Confidentiality of the information was reassured. The investigator selected 60 samples using purposive sampling technique, who fulfilled the inclusion criteria.

During the pre-test, demographic variables were collected by using a personal data sheet followed by the modified burden assessment scale was administered to the caregivers of clients with dementia. It took 15 minutes for the investigator to complete the pretest for one sample. After the pretest the investigator administered the psychological interventions to the caregivers of clients with dementia for a period of 15 days and post test was conducted. Both descriptive and inferential statistics were used for data analysis.

Ethical Considerations:

Ethical Clearance was obtained from the International Centre for Collaborative Research, institutional Review Board, Omayal Achi College of Nursing. Informed Consent was obtained from the participants and confidentiality and privacy of the clients were maintained throughout the study.

Results

Majority of caregivers of clients with dementia 33(55%) were in the age group of 31- 40 years, 46(76.67%) were females and 47(78.33%) were daughter-in-laws. With regard to duration of care 60(100%) were giving care more than 3 years, 48(80%) of them belonged to nuclear family and 60(100%) of them were living with the client. The overall mean score in the pre test was 37.21 with the SD 2.12 and the overall mean score in the post test was 27.42 with the SD 2.47, and the calculated t value $t = 25.009$ at $p < 0.001$ which shows highly significant difference between pre test and post test level of burden among caregivers of clients with dementia. Figure 1 show the overall percentage distribution of pre test and post test level of burden among caregivers of clients with dementia.

The study also found that there was no statistical significant association of demographic variables with their mean differed burden score among caregivers of clients with dementia. Table 3 shows the comparison of pre test and post test level of burden among caregivers of clients with dementia. Fig.2 shows the comparison of domain wise pre test and post test burden score among caregivers of clients with dementia.

Discussion

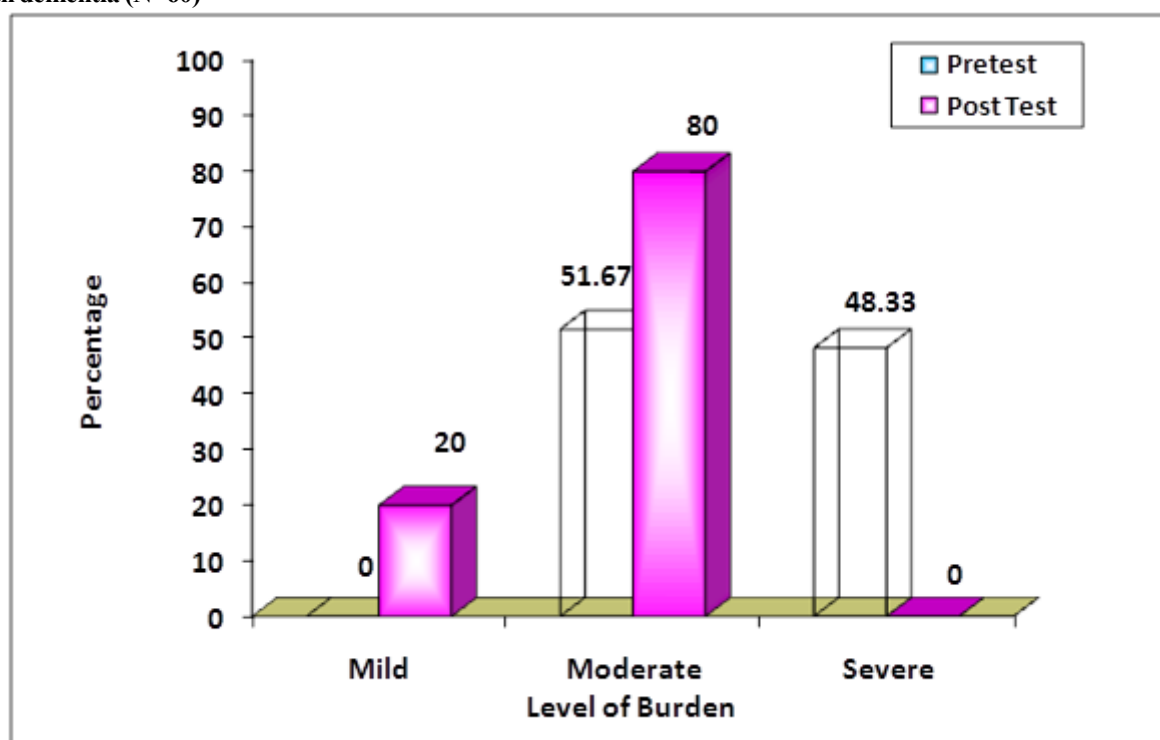
The study results revealed that 80% (pretest) and 56% (posttest) of caregivers of clients with dementia had moderate level of burden. This finding was consistent with the study conducted by Hepworth JT (2012) and Scheltens P (2012). Result of these studies showed that 80% of the caregivers had high level of burden and

Table - 1: Domains and number of items of Modified Burden Assessment Scale

DOMAINS	No. OF ITEMS
Emotional/Psychological	10 Items
Physical	4 Items
Social	8 Items
Financial	3 Items
Total	25 Items

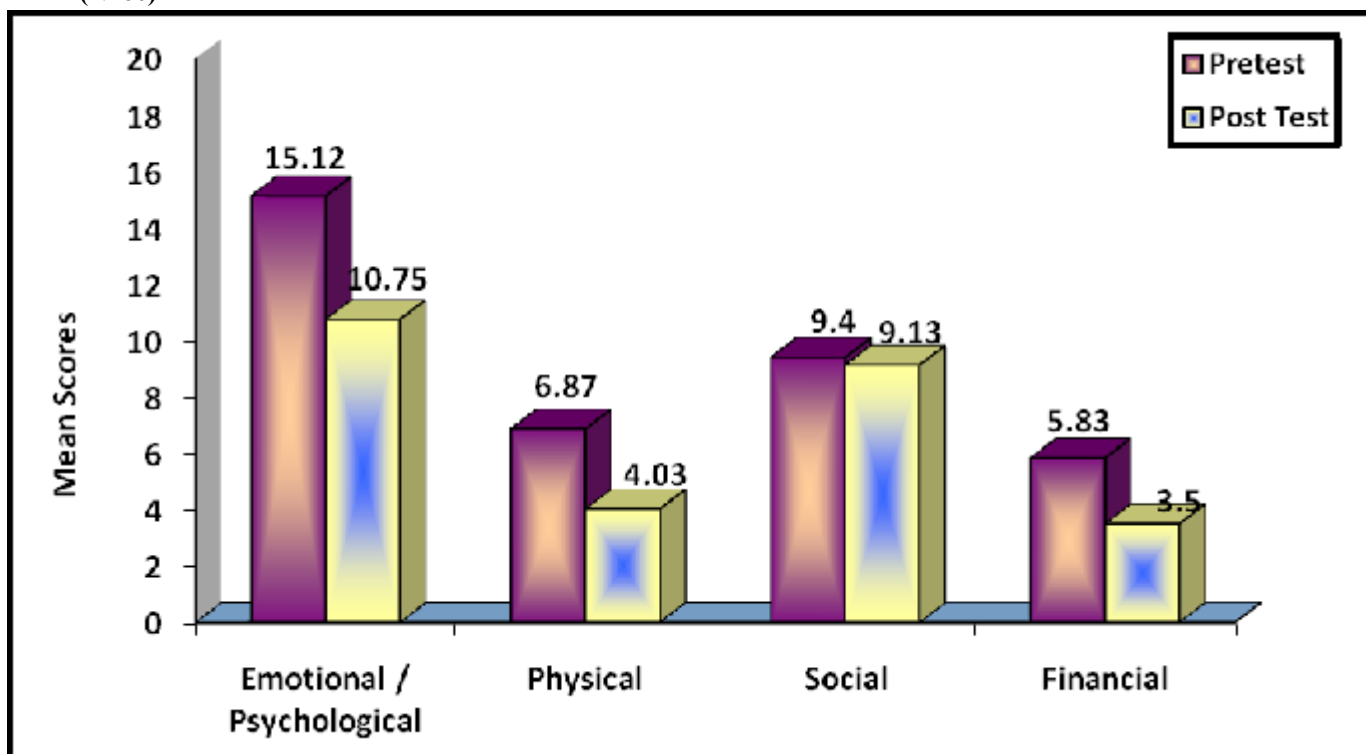
Table - 2: Scoring and Interpretation of Modified burden Assessment Scale

SCORING PERCENTAGE	LEVEL OF BURDEN
<50%	Mild level of burden
50-75%	Moderate level of burden
>75%	Severe level of burden

Figure – 1: Overall percentage distribution of pre test and post test level of burden among caregivers of clients with dementia (N=60)**Table - 3: Comparison of pre test and post test level of burden among caregivers of clients with dementia (N=60)**

Domains	Pre test		Post Test		Mean Difference	't' Value
	Mean	S.D	Mean	S.D		
Psychological	15.12	1.09	10.75	1.11	4.37	t = 20.417*** p = 0.001, S
Physical	6.87	1.16	4.03	0.66	2.83	t = 16.196*** p = 0.001, S
Social	9.40	1.11	9.13	0.99	0.27	t = 1.501 p = 0.139, N.S
Financial	5.83	0.67	3.50	0.87	2.33	t = 18.663*** p = 0.001, S
Overall	37.21	2.12	27.42	2.47	9.80	t = 25.009*** p = 0.001, S

***p<0.001, S – Significant, N.S – Not Significant

Figure - 2: Comparison of domain wise pre test and post test burden score among caregivers of clients with dementia (N=60)

suffering from psychological distress, depression, financial stress and anxiety^{16,71}.

While comparing the domains of burden, the psychological domain mean difference score was high than the physical, social and financial domains. Researchers used different interventions such as Guetin S (2011) music therapy; Hauck WW (2011) tailored activity program and Jerimia Heinik (2011) recreational activities in order to reduce the level of burden, stress, depression and anxiety among the caregivers of clients with dementia^{18,9,101}.

Limitations:

The investigator had difficulty in gathering and controlling the group during the administration of the intervention tool.

Conclusion:

The present study conducted by the investigator, mainly focused on the psychological intervention as a tool to bring about a reduction in the level of burden among clients with dementia. The study concluded that psychological interventions had a significant impact on the reduction of level of burden among caregivers of clients with dementia.

Source of Support: NIL

Conflict of Interest: NIL

References

1. Alzheimers Related Disorders Society of India (ARDSI) Reports Indian Scenario, October 10, 2010.
2. Anderson S. Caregivers burden and perceived health of caregivers of dementia. *Journal of Geriatric Psychiatry*. 2009; 42:314-318.

3. Aizcorbeurrozc. Estimate caregivers burden and psychological distress. *National Institute of Aging*. 2010; 42: 221-224.

4. Novak M, Guest C. Application of a multidimensional caregiver burden inventory. *Gerontologist*. 1989; 29:798-803.

5. Marvardi M, Mattioli P, Spazzafumo L, et al. Study Group on Brain Aging, Italian Society of Gerontology and Geriatrics The Caregiver Burden Inventory in evaluating the burden of caregivers of elderly demented patients: results from a multicenter study. *Aging Clinical Exp Research*. 2005; 17:46-53.

6. Hepworth JT. Burden experienced by caregivers with dementia in Taiwan. *US National Library of Medicine*. 2012; 48:206-214.

7. Scheltens P. Prevention of depression among dementia caregivers in Netherland. *Department of General Practice*. 2012; 298-306.

8. Guetin S. Music therapy on depression of caregivers of dementia. *Journal of Geriatric Psychiatry and Neurology*. 2011; 21:159-165.

9. Hauck WW. Tailored activity program on caregivers burden of dementia clients. *Journal of Geriatric Psychiatry and Neurology*. 2011; 68:421-423.

10. Jerimia Heinik. Recreational activities on level of burden of caregivers of dementia. *Institute of Aging*. 2011; 36: 216-218.