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Research Article

Psycho Social Intervention - An Effective Strategy in Improving the Family System Strengths among the Caregivers of Stroke Survivors

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ABSTRACT

The presence of a serious and chronic illness in one family member usually has a profound impact on the family system, especially on its role structure and the family functions. Families play an important supportive role during the course of a client's convalescence or rehabilitation. Most caregivers of stroke survivors find themselves in a stressful situation. Research has shown that taking care of stroke survivors creates burdens for caregivers and decreases their levels of well being. To evaluate the effect of psycho social intervention on family system strengths among the care givers of stroke survivors. The study designed involved true experimental pretest and posttest design. The study was conducted in Kattankulathur Block, Tamilnadu. The study included 240 caregivers of stroke survivors. The experimental group received psychosocial interventions such as individual counseling and enrollment in self-help groups,. After 3 months, there was significant difference in the family system strengths between the experimental group and control group at t = 37.58 and p value of 0.001. The present study concluded that family coping intervention programme is an effective nursing intervention recommended for the caregivers of stroke survivors to strengthen the family system.

Keywords: Family coping Intervention, Family system strengths, Stroke, Caregivers, Individual Counseling, Self-help groups

INTRODUCTION

Merson MH (2005) defined that stroke is a syndrome characterized by loss of either cognitive or physical functioning caused by damage to blood vessels that supply nutrients and oxygen to the brain. In Industrialized countries, it is the third most common cause of death and leading cause of disability among people living in their own homes. Furthermore, the incidence of stroke is about 19% higher in males than in females. About 25% of cases occur in people below 65 years.[1]

A new or recurrent stroke occurs in 750,000 Americans every year. Till date, more than 5 million stroke survivors are alive, however, 30% survivors suffer from permanent disablement. (American Heart Association, 2007). Furthermore, stroke has a profound effect on social and economic aspect of an individual, family, and community. Although social and emotional distresses are more difficult to quantify, these are readily apparent to anyone whose family has had a stroke patient. In the United States, every 45 seconds, a new individual suffers from stroke, although a significant decrease in stroke incidence and mortality has been observed over the past two decades. (Phipps, 2009) [2]

WHO collaborative study reported nearly one-third of deaths in three weeks and 48% deaths within one year due to stroke in both developed and underdeveloped countries. (Park, 2011)[3]

Influences of family on health and disease is numerous and multifactorial. These influences can be expressed across the individual and family lifecycle.(Swanson2005)[4] Individual's illness in a family are interrelated with wellbeing of the family. Any illness of an individual affects the whole family system and communication, thereby affecting the course of an illness and health status of the entire family. Therefore, the impact of the illness status on the family and the family's impact on the illness status are reciprocal or highly interdependent (Gilliss etal., 1989; Wright and Leahey, 1994).[5]

Serious and chronic illness of an individual usually has a profound impact on an entire family's role structure and functions, which plays an important supportive role during the course of a client's convalescence or rehabilitation. In the absence of this support, the success of convalescence/rehabilitation significantly decreases. (Friedman MM, 1999)[5]

Families are now providing long-term care for the family member with chronical illnesses. Research studies on the outcomes of care giving have mostly explored burden, stress and depression of a caretaker. (Cannon C, Acorn S, 1999)[6]

Approaches for helping individuals and family assume an active role in wellbeing. Care should focus on empowerment rather than on enabling or providing help. (Hernandez et al, 2005) If families ignore the illness or those require health assistance, resentment occurs among the family members, which may have negative consequences if there is not a match between what is expected and what is offered. (Stanhope M, LancasterJ, 2004)[7]

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Table 1: Assessment of Pretest Level of Family System Strengths Among Care Givers

Variable		Experimental group (120)		Control group (120)	
		n	%	n	%
Family system strength	Poor	60	50%	55	45.8%
	Moderate	60	50%	65	54.2%
	Good	0	0.0%	0	0.0%

Table 2: Posttest Level of Family System Strength Score Among Care Givers

Variable		Group			
		Experiment (120)		Control(120)	
		n	%	n	%
Family system strengths	Poor	0	0.0%	42	35.0%
	Moderate	35	29%	78	65.0%
	Good	85	71.0%	0	0.0%

In working with families, a wide array of interventions is dynamically and flexibly used. (Bell, 1995; Gilliss and Davis, 1993) In caring for a sick member at home especially life-threatening illness, the family members often experience helplessness, powerlessness, and stress. However, it is now widely accepted that there are levels of sophistication and complexity in counseling and that basic family counseling is a core nursing intervention for families. Counseling is a process of helping families and their members to address, resolve, and effectively cope with their problems and thoroughly utilize their competencies and other resources. (Greiner and Demi, 1995) [5]

Family strengths or forces contributing to family unity and solidarity foster the development of inherent family potential (Greeff etal, 2006; Sittner etal, 2007).

In recent years, a shift of family health care from an illness or problem and deficiency focus to a strength based focus has occurred (Sittner etal, 2007, Stolte, 1996) [8]

Yoo et al (2007) conducted a study to evaluate the effects of a support group intervention on the burden of the primary caregivers of stroke patients with a nonequivalent control group pretest-posttest design. The study included 36 primary caregivers of stroke patients, 18 in the experimental and 18 in the control group. The study group participated in six sessions of support group intervention for two weeks, and the degree of caregiver burden was assessed. The results revealed that the experimental group had a significantly lower total burden score ($t = 2.061$, $p = 0.047$) than the control group.**[9]**

Family nursing must be understood and practiced by the community health nurses. An understanding of the family nursing provides a mechanism for assessing and intervening with families to improve their level of wellness and increase the health of family as a whole. (Nies MA and McEwen M, 2011) [10].However, families need to avail social support to prevent them from entering into financial crisis. Helping family member's access untapped social support, such as mobilizing informal support system, is another helping strategy aimed at promoting adequate family social support. Nurses are aware of the value of self-help groups for family members who need support to overcome a stressful handicapped or life experience. (Steiger and Lipson, 1995) Self-help groups (support groups) have increased in the last two decades, and this rapid growth is evidence of their perceived effectiveness. (Friedman MM, 1999) [5]

This study aimed to evaluate the effect of psycho social intervention on family system strengths among caregivers of stroke survivors.

MATERIALS AND METHODS

True experimental pretest and posttest design was adopted for the study.. The study was conducted in a rural area of Kancheepuram district, Kattankulathur block, Tamil Nadu after obtaining permission from the Block Development Officer of the Kattankulathur Block, which comprises of 39 villages with a total population of 2,18,000. The independent variable included family coping intervention, and the dependent variable included family system strengths. Multistage sampling was adopted. In Phase I, 12 villages were selected using lottery method. In Phase II, the list of all the stroke survivors was obtained from the primary health centers, and in Phase III, women caregivers with family stress were randomly selected using lottery method. The study population comprises of all caregivers of stroke survivors residing in Kattankulathur Block. Of 240 caregivers, 120 were allotted to the control group and 120 to the experimental group by probability simple random sampling technique. Inclusion criteria for the sample selection comprises of caregivers of stroke survivors for >1 year, unemployed caregivers, female caregivers, caregivers who are volunteers, and caregivers who can understand Tamil.

Ethical Consideration: The Present study was approved by the Institutional Ethical committee. With the brief introduction of the study, informed consent was obtained from all the study participants.

Instruments: Tool (a) for Demographic data: This was developed to obtain information on personal and family details.

Tool(b) for Modified Family system strength inventory: This tool was developed by Mischke KB and Hanson SMH (1991), and the investigator modified the tool to suit for the Indian population, which comprises 20 items for measuring the family system strengths, with a sore ranging from 0–3 for each item. Higher score indicate good family system strengths. Content validity of the tool was obtained from various nursing experts, and reliability of the tool was established by Cronbach's alpha, and r value of 0.75 indicates feasibility for data collection.

Table 3: Comparison of Pre- and Posttest Family System Score

	Group				
	Experimental (120)		Control (120)		
	Mean	SD	Mean	SD	unpaired t-test*
Pretest					t = 0.75
	21.06	4.92	21.08	3.52	P = 0.44
					DF = 236
Posttest					t = 37.58
	44.73	5.83	22.08	3.07	P = 0.001***
					DF = 236
#Paired t-test	t = 42.58		t = 1.52		
	P = 0.001***		P = 0.15		
	DF = 117		DF = 118		

****extremely significant at P ≤ 0.001*

Intervention: The participants in the experimental group received individual counseling for 30 minutes for every 15 days and were advised to enroll in the self-help groups and advised to attend the meetings of self help group of their village, whereas those in the control group received no intervention. After 3 months, the family system strengths were assessed using modified family system-strengths inventory for both the groups.

Data Analysis: Data was analyzed using SPSS, Version 16.0 (IBM, Chicago, USA). was used to obtain the p value. P values (<0.05) were considered to indicate significant statistical difference. (Sharma S 2011)[11]

RESULTS

Data analysis and the results are tabulated below:

Tables illustrate the pretest level of family system strengths among the caregivers as 50% (n = 60) and 54.2% (n = 65) in the experimental and control groups, respectively. After the family coping intervention, it increased to 71.0% (n = 85) in the experimental group. However, there was no improvement in the family system strengths in the control group (TABLES 1 and 2).

Table 3 shows the comparison of pretest and posttest levels of family system strengths in both the groups. Before intervention, the mean score and standard deviation of the caregivers in the experimental group is 21.6 and 4.92, respectively. However, these values are 21.48 and 3.52, respectively, in the control group at t = 0.75. A p value of 0.44 is not statistically significant. Following intervention, the experimental group had the mean score of 44.73 and standard deviation of 5.83. The control group had the mean score of 22.08 and standard deviation of 3.07 at t = 37.58. A p value of 0.001 is statically significant at the confidence interval 39.45% (37.6% –41.28%; TABLE 4)

DISCUSSION

Most caregivers of stroke survivors find themselves in a stressful situation. Research has shown that taking care of a stroke patient creates burdens for caregivers and decreases their levels of wellbeing (Anderson CS, Lento J, Stewart EG, 1995).[12] The results of the present study revealed that family coping intervention for the caregivers of stroke survivors had greater impact on their family system strengths.

The study compared the demographic data of the caregivers in both the groups. In the experimental group, majority of the care givers (55.1%, n = 65) were 31–40 years and married (76.3%, n = 90). In addition, 70 care givers (59.3%) reported presence of past history of chronic illness in the family, 87 (73.7%) belonged to joint family, 67 (56.8%) had 6–9 family members, 39 (33.1%) completed higher secondary education, and majority 67 (56.8%) were Hindus.

In the control group, 65 caregivers (54.2%) were of 31–40 years, 84 (70%) were married, 61 (50.8%) reported past history of chronic illness in the family, 86 (71.7%) belonged to joint family, 69 (57.5%) had 6–9 family members, 48 (40%) completed higher secondary education, and 69 (57.5%) were Hindus.

Victoria Steiner and Linda (2008) have done a comparative study to examine the emotional support, physical help, and health of caregivers of stroke survivors. Seventy-three caregivers from the Midwest participated in a parent study that examined their experience of caring during the first 12 months after stroke. Caregivers were randomized to an online intervention of support and education (n = 36, Web users) or a control group (n = 37, non-Web users). A secondary data analysis during telephone interviews at baseline 3, 6, and 12 months after stroke was performed. No significant mean differences were found between Web and non-Web users in the above variables at these points in time. Consequently, the caregivers were merged into one group, and the relationships among the variables at the different points in time were analyzed. Significant, moderately positive relationships were found between emotional support and physical help at baseline, 3, and 12 months. Furthermore, significant, moderately positive relationships were found between emotional Pierce (support and caregiver health at 6 and 12 months. Results highlight the importance of caregivers establishing an adequate self-care system that provides emotional support and physical help. Findings also denote the need for nurses (as caring agents) to assess caregiver health later in the caring process and be aware of its relationship to emotional support.[13]

Stewart et al (1998) conducted a study on Peer visitor support for family caregivers of seniors with stroke. The objectives of the study were to implement a home visiting support programme for family caregivers of seniors with

Table 4: Mean Difference and Confidence Interval (CI) of Pre- and Post test in the Experimental and Control Group

Family System Strengths	Max score	Mean value		Mean Difference with 95% CI	Proportion with 95% CI
		Pretest	Posttest		
Experimental group	60	21.06	44.73	23.67 (22.57–24.77)	39.45% (37.6%–41.28)
Control group	60	21.08	22.08	0.6(0.08–1.12)	1.0 (0.13%–1.8%)

a recent stroke using experienced peers, to monitor, describe, and evaluate the support intervention process and to measure the impact of peer support intervention on caregivers perceptions of their social support, burden, stress, competence, and the use of health care services by the stroke survivors. Twenty family caregivers were initially visited by a health professional for assessment, and thereafter twice weekly for 12 weeks by a peer (experienced care giver). Transcripts of audiotaped post intervention (3 and 6 months) interviews with participants and diaries of professionals and peers were subjected to content analysis. Peer visitors offered emotional, informational, and affirmational support to family caregivers. Family caregivers reported that the intervention met their support needs lessened some of their care giving demands, and enhanced their confidence, and ability to cope. The major goals of family interventions are to decrease the immediate negative effects of stress felt by family members and family as a whole, as well as to mobilize their coping capabilities in adaptive ways. [14]

The study findings are consistent with study done by Vanden et al (2000) on short term effects of group support programme and an individual support programme for caregivers of stroke survivors. The results of the programme are considered encouraging, and they recommended implementation of more intervention programmes for caregivers of stroke survivors. Reframing family members' view of their problem is often used to assist caregivers to search for alternative behavioral, cognitive, and affective responses to their problem.[15]

CONCLUSION

The present study was conducted to assist the family caregivers to enhance their family system strengths during the illness trajectory in the family. **(Walsh SM, Estrada, Hogan N, 2004)**.[16] People with low level neuroticism use active coping strategies and are satisfied with social support they receive, establish good social skills, and experience less negative consequences from a stressor. Psycho social intervention (**Lazarus RS, Folkman S, 1984**) given to the caregivers of stroke survivors had greater impact on their family system strengths.[17] Therefore, family coping intervention is recommended as an effective nursing intervention for the caregiver of stroke survivors to improve the family system strengths.

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CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

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