Psychiatric Social Work Intervention in Spouse of Stroke Survivor

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ABSTRACT

Background: Family caregivers provide a base for long-term home care of stroke survivors. The overwhelming stress associated with caregiving hinders the ability of family caregivers to utilize their internal and external resources to cope with this situation, thereby placing their own health at risk. Studies have shown that psychosocial intervention like supportive counseling, psychoeducation, behavior activation can be effective in improving psychological wellbeing of care givers. **Aim and objective:** The present study was aimed to help care giver of stroke survivor to improve psychological distress, strain and burden using psychiatric social work intervention. The objectives of the study was to identify the psychological distress in caregiver of stroke survivor, to assess family burden in caregiver of stroke survivor and to identify care giving strain in caregiver of stroke survivor. **Methodology:** Present study used a single subject case design and compared pre- and post-intervention baseline data. Assessment and intervention were completed in 2 months and follow up was done after two months of the post test. The study was conducted at Centre of Rehabilitation Sciences, LGBRIMH, Tezpur. Assessment tools like, Family Assessment Device, Care Strain Index, Depression Anxiety Stress scale and Zarit Burden Interview were applied on caregiver. Based on these assessments psychiatric social work interventions were provided. **Result:** Psychiatric social work intervention showed a significant difference in the pre and post-test scores. Improvement was seen in the area of care burden, depression, anxiety, stress and family functioning. **Conclusion:** Psychiatric social work intervention can lead to improvement in psychological health, social well-being and social support in caregivers.

Keywords: Stroke, Caregivers, depression, anxiety, stress, Psychiatric social work

INTRODUCTION

More than 50% to 70% stroke survivors develop neurological and cognitive impairment (Greenland et al., 2010), leading to care burden on their own families (Ski & O'Connell, 2007; Suh et al., 2004). Systematic reviews on family care givers of stroke survivors have shown that care giving to stroke patient is a challenging task. It negatively impacts the care givers in form of psychological distress, care strain and poor quality of life (Murray, Young, Forster & Ashworth, 2003; Greenwood, Mackenzie, Cloud & Wilson, 2008). Indian study on family care givers of stroke survivors highlighted high level of depression, anxiety and functional dependence associated with impaired quality of life. Psychosocial intervention such as psychoeducation, problem solving and stress coping of family care givers, social relationship and cognitive behavior intervention have significantly lowered down the level of depression, anxiety and stress and has enhanced psychological wellbeing in care givers of stroke survivors (Brereton, Carroll & Branston, 2007; Cameron & Gignac, 2008; Raju, Sarma & Pandian, 2010). In the last few decades, studies have highlighted on the importance of care giving in stroke survivors and aimed at supporting stroke caregivers and improving their quality of life and well-being (Panzeri, Ferrario & Vidotto, 2019, Tseung, Jaglal, Salbach &

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Cameron 2019, Kootker et al., 2019). Psychiatric social worker can help families and can be effective in dealing with caregivers issues after stroke and covers diverse aspects of care and can help in interventions and recovery process. Through family assessment the psychiatric social workers focus on family functioning, identify stressors and works on resilience of the caregivers in order to combat burden of caregiving (Ellis et al., 2010; Evans et al.,1988). Thus, the present case study aims to assess psycho-social problems and provide psychiatric social work intervention to the spouse of stroke survivor.

METHODOLOGY

The present case study was referred for psychosocial assessment and interventions. The study used a single subject case design and compared pre- and post-intervention baseline data and was conducted at Centre of Rehabilitation Sciences, LGBRIMH, Tezpur. Psychiatric social work intervention was done with caregiver (spouse). Assessment and intervention were completed in 2 months and follow up was done after two months of the post test.

TOOLS FOR ASSESSMENT

1. **Semi-structured clinical and socio-demographic data sheet:** A relevant sociodemographic and clinical detail was collected using this proforma.
2. **Family Assessment Device (Epstein, Baldwin, & Bishop, 1983):** The FAD is a 60 item self-report questionnaire based on the McMaster Model of Family Functioning (MMFF), a clinically oriented conceptualization of families. The model identifies six dimensions of family functioning-problem solving, communication, roles, affective responsiveness, affective involvement, behavioral control and general functioning. Each domain has different set of questions. Cronbach Alpha (α =0. 9).
3. **The Depression, anxiety and Stress Scale (Lovibond & Lovibond, 1995):** It is a 21item self report tool designed to measure depression, anxiety and stress in individual and care givers. It is also used to assess psychological distress and care burden in subjects. It follows a likert scoring 1= normal, 2=mild, 3= moderate, 4=severe and 5= extremely severe. Cut off ranges from 0-28 and more for depression, 0-20 and more for anxiety and 0 to 34 and more for stress. Cronbach Alpha (α =0.7).
4. **Care giver strain index (Robinson, 1983):** It is a 13 items assessment tool designed to assess individuals of any age who have assumed the role of carer. The CSI can be used to quickly identify families with potential caregiving concerns. It assesses care burden in the area of Employment, Financial, Physical, Social and Time. Scoring is done continuous on the basis of 1=Yes, 2=No. Cut off of seven or more than seven indicate high level of stress. Cronbach Alpha (α =0.7).
5. **Zarit Burden Interview (Zarit, Reever & Bach-Peterson, 1980):** The Zarit Burden Interview, a popular caregiver self-report measure used by many aging agencies, clinicians, mental health professionals. It is 22 items scale which is comprises of Presence or intensity of an Affirmative response, caregiver health, psychological well-being, social life, finances. Higher the score indicates high level of stress. Each item on the interview is a statement which the caregiver is asked to endorse using a 5-point scale range from 0 (Never) to 4 (Nearly Always). Cronbach Alpha (α = 0.9).

CASE INTRODUCTION

The patient 46 years old, Muslim, married for 18 years from low socioeconomic background, hailing from sub-urban area of Tezpur, Sonitpur district, Assam. The client was referred for physiotherapy at Centre for Rehabilitation Sciences, LGBRIMH. Patient is the youngest child among 4 siblings born out of non-consanguineous marriage, currently inhibiting with his wife, daughter and son.

BRIEF CLINICAL HISTORY

Patient was maintaining well before 3 months. On the day of the incident, there was a family event at home where the patient had consumed red meat and alcohol in excess quantity leading to stroke. He had an episode of stroke in July, 2019. The first few days and weeks after a stroke was a stressful for family member as they have to deal with the shock of the event. As the stroke occurs suddenly and family members were anxious about prognosis and uncertainty about what the future holds. After the episode of the stroke the family members were in confusion, shock, helplessness, grief, and were depressed especially his wife. After the stroke there was a behavioral change which was inappropriate or confusing to family members. He used to feel difficulty to move his right part of the body due to which he was bed ridden for 1 month. Then the family members have noticed that he used to remain irritable most of the time and found difficulty to walk and perform his daily chores like before. The case was referred to Centre of Rehabilitation Sciences LGBRIMH, Tezpur for further management. He was referred to the physiotherapy department. The case was further referred to psychiatric social work for intervention.

FAMILY DYNAMICS

The family is in Stage VI (Families with Launching Young Adult) and has parental, parent-child and sibling subsystems which are well formed. Father was nominal and functional head takes decision with democratic and mutual understanding with family members. The boundaries are clear and open. Roles are explicitly assigned but multiple roles were present in the wife and younger son plays complementary role due to illness of the patient. Clear and direct communication pattern is present. Positive reinforcement in the form of verbal appreciation is present. Problem solving strategies have found to be inadequate in terms of the patient's illness. The wife was in distress due to the illness of the patient where she was worried about the recovery of the patient (husband) and preoccupied what will happen in future. Primary, secondary, and tertiary social support system was adequate from the family, relatives and neighbours, and social institutions.

Table 1: Assessment of family functioning on the basis of Family Assessment Device

Dimensions	Score	Functioning
Problem solving	2.5	Unhealthy
Communication	2	Healthy
Roles	3	Unhealthy
Affective Responsiveness	2	Healthy
Affective Involvement	2.5	Unhealthy
Behavior Control	2	Healthy
General Functioning	2	Healthy

SOCIAL DIAGNOSIS

Index patient 46 years, male, belonging to Islam religion, hailing from urban area of Tezpur was brought to LGBRIMH with the chief complaints of unable to walk, unable to move right side of his body, difficulty to perform day to day work and irritability for the period of 3 months precipitated by stroke. Social history reveals that care burden was present in the family as the patient was not able to perform his daily work functions. Burden was present on the family. Multiple and complimentary roles present at wife and son of the patient. Family dynamics reveals that there is a cordial relationship between the patient, wife and children. Distress, strain, burden and dissatisfaction were present in wife. Family assessment reveals unhealthy functioning in problem solving, roles and affective involvement. The assessment of caregiver found extremely severe level of depression, severe level of anxiety, moderate level of stress, high level of caregiver stress, moderate to severe family burden.

Psychiatric Social Work Intervention

In this case study psychiatric social work intervention means providing psychoeducation, Behavior Activation, Supportive counseling, Problem Solving and Coping Skills interventions, Cognitive behavioral case work intervention, Relaxation Techniques to the spouse. A total of 12 sessions was conducted with his wife.

PROCESS OF INTERVENTION

Rapport Building and Therapeutic alliance

Rapport was established with the spouse in order to build trustful and professional relationship. Therapeutic alliance was build with the spouse in which she was explained the need and benefits of the interventions. The frequency, duration and settings of the sessions were explained and mutual agreement was done in order to complete intervention.

Supportive Behavioral Case Work Intervention

The session was initiated with the purpose of providing support counseling to the patient wife in order to help ventilate her feeling and express emotions independently. The objective of the supportive counseling was to promote best possible psychological, social adaptation by restoring and reinforcing her ability to cope up with the challenges of spouse, to positively bolster self-esteem, to make her aware about the life situation, treatment limitation, what can be achieved and what cannot be achieved. Subsequent session was conducted on reassurance, explanation of the problem, guidance, suggestions and encouragement. Moreover, focus was on to combat the feeling of inferiority, guilt and to bolster self-esteem.

Psychoeducation

The educational sessions were conducted with the spouse to improve cognitive mastery and care giving skills. In the first session information about stroke, causes of relapse, prevention strategies, were discussed. The session also highlighted the importance of care givers in the process of patient's illness and appropriate ways of communication among them, without being indifferent but at the same time fostering the patient independence. Spouse was educated about how the emotions shown by the family can be the crucial perpetuating factor. She was also educated about measures to handle the patient's dietary, and ways to ignore over attribution problem associated with stroke survivor.

Cognitive Behavior Therapy

The focus of the session was to identify troubling situation such as grief, anger, irritability, emotional disconnectedness of the spouse during the care giving period and to alter those situations through positive and motivational talk with the therapist, self-talk, giving new positive interpretation to the problems. The session also focusses to identify negative and inaccurate thinking and ways to reshape it. Subsequently, next sessions were initiated with the purpose of creating a schedule of activities that will lead to have positive experiences in life. The session helps the patient's wife to understand how her behaviors influence her emotions. Cognitive restructuring was done to reduce cognitive overload and negative orientation such as negative thinking, ruminating, or emotional deregulation in the wife.

Coping Skills

Studies have shown that care givers of persons with stroke generally use active problem-oriented coping strategies than emotion-focused coping strategies. Caregiver was advised to acquire some coping strategies, such as problem focused coping strategies, positive distraction, seeking social support, identifying solutions.

Problem Solving Skills

Learning problem solving skills helps the care giver to develop coping in crisis situation. Care givers of stroke survivor often faces psychological distress in the time of care giving and thus problem-solving therapy is found to be an effective measured in decreasing the level of psychological distress (Visser et al., 2013, Pfeiffer et al., 2014). The intervention was based on problem solving model developed by (D'Zurilla and Nezu, 2007) and comprised of six problem solving steps, which includes- (a) problem definition and facts, (b) optimism and orientation, (c) goal setting, (d) generation of alternatives, (e) decision making, and (f) solution implementation and verification. The purpose of the session was to identify the stressors that can be changed or not be changed and help to deal with stressful problems that goes on and off in our daily living. The therapist asked the wife to follow some steps to make her easy to solve the problem, they are as follows- identify problems, come up with several realistic solutions, consider various approaches like brainstorming, changing her point of view or reference, adapting a solution that has worked before.

Relaxation Technique

The session was conducted with the care giver to teach some techniques that will help her to escape or relief from depression, stress and anxiety. The therapist assisted physiotherapist in the session to teach some Jacob Progressive Muscle Relaxation (JPMR) techniques to spouse that will help her to escape or relief from depression, stress and anxiety. It comprises of hand exercise, arm exercise, facial muscles relaxation, neck and shoulder exercise. Deep and slow breathing to release anxiety and relax from head to toe and try to set times throughout the day whenever patient's wife feels stressful. The therapist also addressed care giver to do daily exercise and spends quality time with other family members and friend. The therapist also demonstrated and showed videos and pictorial images of postures of Jacob Progressive Muscle Relaxation (JPMR) techniques during the session and she was advised to practice at home.

RESULTS

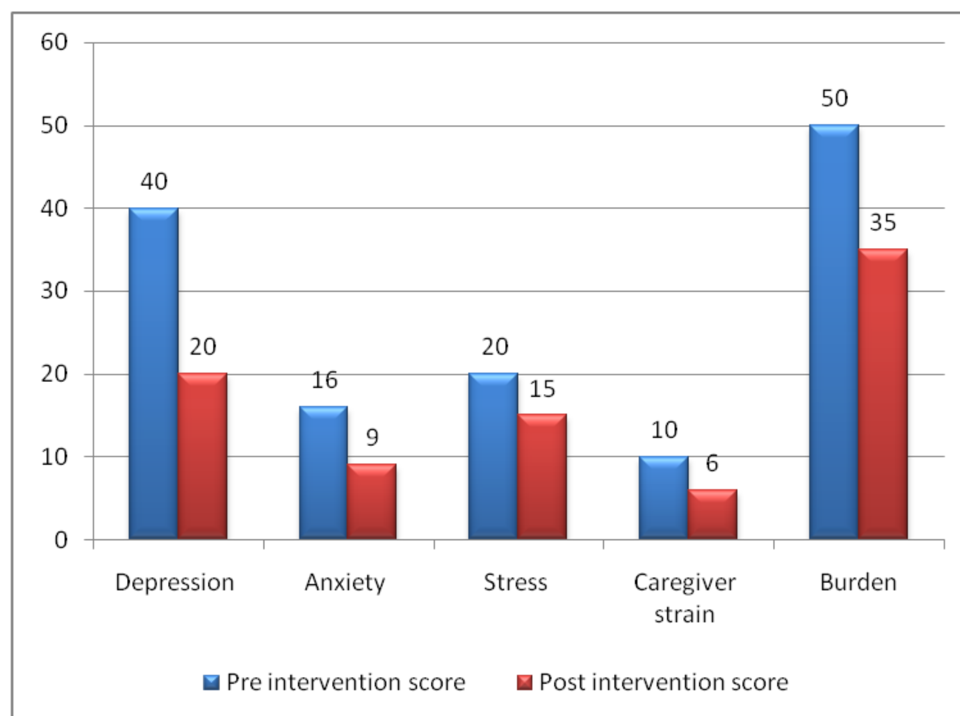
The table (1) shows that Family assessment reveals unhealthy functioning in problem solving, roles and affective involvement. On the other hand, family functioning in communication, affective responsiveness, behavior control and general functioning was found to be healthy.

The table (2) below shows that there was a significant difference found in pre-test and post-test assessment score. Pre-test score of depression was extremely severe which came down to moderate level after intervention. The level of anxiety was in severe level and stress was also moderate level and after intervention it came to mild level. In the same way scores of caregiver strain was at high level of stress and Zarit burden was at moderate to severe level in pre-test assessment which reduces to low level stress and mild to moderate level of burden in the post test assessment.

Table 2: Status of the pre and post test assessment on caregiver

Variables	Pre intervention score	Post intervention score
Depression	40 (extremely severe level)	20 (moderate)
Anxiety	16 (severe level)	9 (mild)
Stress	20 (moderate level)	15(mild)
Caregiver strain	10 (High level of stress)	6 (Low level)
Burden	50 (Moderate to severe burden)	35 (Mild to moderate burden)

Figure 1: Pre and post assessment score of depression, anxiety, stress, caregiver strain index and family burden



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DISCUSSION

In the present study Psychiatric Social Work intervention showed as considerable change in the quality of life of patient and care giver. There was a significant difference found in pre-test and post-test assessment score. Pre-test score of depression was extremely severe which marginally came down to moderate level after intervention. The level of anxiety was in severe level and stress was also moderate level and after intervention it came to mild level. In the same way scores of caregiver strain was at high level of stress and Zarit burden was at moderate to severe level in pre-test assessment which reduces to low level stress and mild to moderate level of burden in the post test assessment. A study conducted by Watkins & French (2009) also came up with the conclusion that psychosocial intervention serves as anti-depressant therapy in care givers of persons with stroke survivor. Comprehensive psychosocial intervention results in lessening the psychological distress of care givers of stroke survivor. Interventions like, psychoeducation, problem solving skills, cognitive behavior therapy, supportive counselling enhances functioning recovery and coping in both patient and care givers (Mitchell et al., 2008; Davis, 2004; Kendall et al., 2007). Evans et al. (1988) in his intervention study based on problem solving skills in care givers of stroke survivors highlighted that problem-solving skills enhances the family functioning. Wilz & Barskova (2007) stated that cognitive behavioral treatment offered to stroke carers has a positive effect on carers' mood and quality of life. Relaxation technique was taught to the wife in the present study to reduce her stress and anxiety. Similar finding was noted in other studies was relaxation therapy found to be effective intervention with care giver in reducing stress and anxiety (Kneebone, Walker-Samuel, Swanston & Otto, 2014; Minshall, 2019). Clark, Rubenach and Winsor (2003) , and Van den Heuvel et al(2000), which was based on stress-coping model respectively, showed an effects on the stroke caregiver's knowledge, coping skill and psychological health. In the systematic review by Eldred and Sykes (2008) found that psychoeducation that combined of stroke education and cognitive behavioral techniques did showed significant effect on the psychological wellbeing of family caregivers. In the study by Hartke and King (2003) sessions of cognitive behavioral interventions for the stroke caregivers influenced significantly on caregiver's depression. Teaching effective problem-solving skills to family caregivers of patients with Stroke has been shown to be useful for promoting physical and psychosocial well-being (Lui, Ross, & Thompson, 2005).

In the present study it was found that caring for the patients with stroke is associated with care burden in wife. It is important to assess the care givers along with the patient's in order to cater these problems. In gender differences studies among spousal caregivers of stroke patients it was found that female spouses are more negatively affected in their life situation due to the patients' stroke event than the male spouses. So, while designing intervention individual differences must be taken in considerations. The interventions should focus on individual support, so that the caregivers can adapt to their new role and be comfortable and effective as informal caregivers (Larson et al., 2008).

Social worker has a diverse role in managing stroke patients and care givers. The area of work includes, counselling to patient and care givers, liaison services, service providers, initiation in self help group, working with multi-disciplinary clinical team, fund raiser. Social work aims to help the patient, their family, community to reach determined goals. Social workers act as an enabler, counsellor, guide with an aim to assist stroke patients in the process of adjustment to disability and tries ways in order to facilitate patient to return to the community at the highest possible functional, social and economic level (Padberg et al., 2016; Ellis et al., 2010). Fang, Mpofu and Athanasou (2017) in a pilot trial of a constructive

integrative psychosocial intervention in caregivers of stroke patients highlighted that comprehensive psychosocial interventions are those that result in a positive construction of experience of illness of illness by patients and significant others. This addresses their cognitions related to living with stroke and the related behavioural response to the stroke experience. The key qualities include evidence-supported components of psychosocial-behavioural. Glass et al. (2004) found that social work interventions can be an effective measure in maintain the social, emotional, functional, and physical health status of the patient and help the caregivers to cope with the difficulties and stress. Families need support, care and compassion when one if their family member is a stroke survivor. This support could come from the social worker assigned to the family, in order to help normalize and care for the patient. Thus, social workers are a support for patient, family and community (Carlson, 2014)

OUTCOME

Psychiatric Social Work intervention has brought numerous changes in the attitude of the patient's wife. After the care giver gained knowledge regarding the illness. There have been reduced level of depression, stress and anxiety in spouse. Coping and problem-solving skills helped the spouse to come out of care burden distress.

CONCLUSION

The above findings support the present study and conclude that psychiatric social work intervention is the key line approach, when dealing with care givers and patients of stroke survivors.

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Source of Funding: Non

REFERENCES

Brereton, L., Carroll, C., & Barnston, S. (2007). Interventions for adult family carers of people who have had a stroke: a systematic review. *Clinical Rehabilitation*, 21(10), 867-884.

Cameron, J. I., & Gignac, M. A. (2008). "Timing It Right": A conceptual framework for addressing the support needs of family caregivers to stroke survivors from the hospital to the home. *Patient Education and Counseling*, 70(3), 305-314.

Carlson, Alexander. (2014). Social Worker Interventions for Patients Post-Stroke. Retrieved from Sophia, the St. Catherine University repository website: https://sophia.stkate.edu/msw_papers/300

Clark, M. S., Rubenach, S., & Winsor, A. (2003). A randomized controlled trial of an education and counselling intervention for families after stroke. *Clinical Rehabilitation*, 17(7), 703-712.

D'Zurilla, T.J., Nezu, A. M. (2007). Problem-Solving Therapy: A Positive Approach to Clinical Intervention. *Springer*, New York.

Eldred, C., & Sykes, C. (2008). Psychosocial interventions for carers of survivors of stroke: A systematic review of interventions based on psychological principles and theoretical frameworks. *British Journal of Health Psychology*, 13(3), 563-581.

Ellis, G., Mant, J., Langhorne, P., Dennis, M., & Winner, S. (2010). Stroke liaison workers for stroke patients and carers: An individual patient data meta-analysis. *Cochrane Database of Systematic Reviews*, 1(5), 1-101.

Epstein, N. B., Baldwin, L. M., & Bishop, D. S. (1983). The McMaster family assessment device. *Journal of Marital and Family Therapy*, *9*(2), 171-180.

Evans, R. L., Matlock, A. L., Bishop, D. S., Stranahan, S., & Pederson, C. (1988). Family intervention after stroke: does counseling or education help?. *Stroke*, *19*(10), 1243-1249.

Fang, Y., Mpofu, E., & Athanasou, J. (2017). Reducing depressive or anxiety symptoms in post-stroke patients: Pilot trial of a constructive integrative psychosocial intervention. *International journal of health sciences*, 11(4), 53.

Glass, T. A., Berkman, L. F., Hiltunen, E. F., Furie, K., Glymour, M. M., Fay, M. E., & Ware, J. (2004). The families in recovery from stroke trial (FIRST): Primary study results. *Psychosomatic Medicine*, *66*(6), 889-897.

Greenland, P., Alpert, J. S., Beller, G. A., Benjamin, E. J., Budoff, M. J., Fayad, Z. A., ... & Lauer, M. S. (2010). Guideline for assessment of cardiovascular risk in asymptomatic adults: An executive summary report. *Journal of the American College of Cardiology*, 56(25), 2182-2199.

Greenwood, N., Mackenzie, A., Cloud, G. C., & Wilson, N. (2008). Informal carers of stroke survivors–factors influencing carers: a systematic review of quantitative studies. *Disability and Rehabilitation*, 30(18), 1329-1349.

Hartke RJ, King RB. Telephone group intervention for older stroke caregivers. *Topics in stroke rehabilitation* 2003; 9: 65-81.

Kendall, E., Catalano, T., Kuipers, P., Posner, N., Buys, N., & Charker, J. (2007). Recovery following stroke: the role of self-management education. *Social Science & Medicine*, *64*(3), 735-746.

Kneebone, I., Walker-Samuel, N., Swanston, J., & Otto, E. (2014). Relaxation training after stroke: Potential to reduce anxiety. *Disability and Rehabilitation*, *36*(9), 771-774.

Kootker, J. A., van Heugten, C. M., Kral, B., Rasquin, S. M., Geurts, A. C., & Fasotti, L. (2019). Caregivers' effects of augmented cognitive-behavioural therapy for post-stroke depressive symptoms in patients: secondary analyses to a randomized controlled trial. *Clinical Rehabilitation*, *33*(6), 1056-1065.

Larson, J., Franzén-Dahlin, Å., Billing, E., von Arbin, M., Murray, V., & Wredling, R. (2008). The impact of gender regarding psychological well-being and general life situation among spouses of stroke patients during the first year after the patients' stroke event: A longitudinal study. *International Journal of Nursing Studies*, *45*(2), 257-265.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, *33*(3), 335-343.

Lui, M. H., Ross, F. M., & Thompson, D. R. (2005). Supporting family caregivers in stroke care: a review of the evidence for problem solving. *Stroke*, *36*(11), 2514-2522.

Minshall, C., Pascoe, M. C., Thompson, D. R., Castle, D. J., McCabe, M., Chau, J. P., ... & Ski, C. F. (2019). Psychosocial interventions for stroke survivors, carers and survivor-carer dyads: a systematic review and meta-analysis. *Topics in stroke rehabilitation*, *26*(7), 554-564.

Mitchell, P. H., Teri, L., Veith, R., Buzaitis, A., Tirschwell, D., Becker, K., & Cain, K. C. (2008). Living well with stroke: design and methods for a randomized controlled trial of a psychosocial behavioral intervention for poststroke depression. *Journal of Stroke and Cerebrovascular Diseases*, *17*(3), 109-115.

Murray, J., Young, J., Forster, A., & Ashworth, R. (2003). Developing a primary care-based stroke model: the prevalence of longer-term problems experienced by patients and carers. *The British Journal of General Practice*, 53(495), 803-807.

Padberg, I., Knispel, P., Zöllner, S., Sieveking, M., Schneider, A., Steinbrink, J., ... & Meisel, A. (2016). Social work after stroke: identifying demand for support by recording stroke patients' and carers' needs in different phases after stroke. *BioMed Central Neurology*, *16*(1), 111.

Panzeri, A., Ferrario, S. R., & Vidotto, G. (2019). Interventions for Psychological Health of Stroke Caregivers: A Systematic Review. *Frontiers in Psychology*, *10*, 2045.

Pfeiffer, K., Beische, D., Hautzinger, M., Berry, J. W., Wengert, J., Hoffrichter, R., ... & Elliott, T. R. (2014). Telephone-based problem-solving intervention for family caregivers of stroke survivors: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, *82*(4), 628.

Raju, R. S., Sarma, P. S., & Pandian, J. D. (2010). Psychosocial problems, quality of life, and functional independence among Indian stroke survivors. Stroke, 41(12), 2932-2937.

Robinson, B. C. (1983). Validation of a caregiver strain index. *Journal of Gerontology*, *38*(3), 344-348.

Ski, C., & O'Connell, B. (2007). Stroke: the increasing complexity of carer needs. *Journal of Neuroscience Nursing*, 39(3), 172-179.

Suh, M., Kim, K., Kim, I. et al. (2004). Caregiver's burden, depression and support as predictors of post-stroke depression. *International Journal of Nursing Studies*, 42(6), 611-618.

Tseung, V., Jaglal, S. B., Salbach, N. M., & Cameron, J. I. (2019). Implementing caregiver support programs in a regional stroke system. *Stroke*, 50(12), 3585-3591.

van den Heuvel, E. T., de Witte, L. P., Nooyen-Haazen, I., Sanderman, R., & Meyboom-de Jong, B. (2000). Short-term effects of a group support program and an individual support program for caregivers of stroke patients. *Patient Education and Counseling*, 40(2), 109-120.

Visser, M. M., Heijenbrok-Kal, M. H., van't Spijker, A., Ribbers, G. M., & Busschbach, J. J. (2013). The effectiveness of problem solving therapy for stroke patients: study protocol for a pragmatic randomized controlled trial. *BioMed Central Neurology*, *13*(1), 67.

Watkins, C. L., & French, B. (2009). Psychological intervention poststroke: ready for action. *Stroke,* 40(9), 2951-2952.

Wilz, G., & Barskova, T. (2007). Evaluation of a cognitive behavioral group intervention program for spouses of stroke patients. *Behaviour Research and Therapy*, *45*(10), 2508-2517.

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

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