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Social Support and Coping as Predictors of Psychological Distress in Family Caregivers of Stroke Patients

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The present study aimed to examine the predictive outcome of social support and coping on psychological distress in family caregivers of stroke patients. The purposive sample comprised of 90 family caregivers of stroke patients. The family caregivers between 20-45 years were taken from medical units of different teaching Government hospitals of Lahore, Pakistan. Assessment tools included Incapacity Status Scale (Kurtzke, 1981), Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988), Coping Strategies Questionnaire (Kausar & Munir, 2004), and Depression Anxiety Stress Scale (Lovibond & Lovibond, 1995). Results showed that the caregivers perceived most social support from their family. The most commonly used coping strategy was active practical coping and the least used was active distractive coping. Significant negative relationship was found between perceived social support by family and significant others and depression in caregivers. Similarly, significant negative relationship existed between severity of stroke and caregivers' perceived social support by significant others. Family monthly income was negative predictor of psychological distress experienced by the family caregivers and the caregivers' depression was negatively predicted by caregivers' perceived family social support. It was concluded that social support plays an important role in psychological distress experienced by family caregivers of stroke patients. Interventions designed at enhancing social support may be beneficial in the context of stroke patients' care.

Keywords. Social, support, coping, psychological distress, caregivers, stroke patients

Stroke is the first prominent reason of disability and the third most common reason of death in advanced and under developed

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countries (Murray & Lopez, 1997). A prevalence study conducted in Karachi estimated a life time prevalence (21.8%) of stroke in individuals aged 35 years and older (Brody, 1981).Stroke is a very complex illness with varying causes and effects on patients such as patients suffer from physical problems that is, paralysis, hemiplegia, difficulty in performing activities of daily routine, difficulty in walking, and hemiparesis (Kelly-Hayes et al., 2003), emotional problems such as anxiety, depression (Hackett, Yang, Anderson, Horrocks, & House, 2010), cognitive problems, that is, problems in concentration, perception, memory, executive functioning (Tatemichi et al., 1994), and personality changes such as being aggressive, disinhibited, paranoid, labile, and apathetic type. When a person is disabled due to stroke and is unable to perform his/her activities of daily routine, he/she is usually under the caretaking of family members (Dewey et al., 2002). Family members are usually the ones who provide the care. They help the stroke survivors with their daily living activities, like dressing, toileting, coordinating transportations and medical care and appointments (Sturm et al., 2002). Caregiver is an individual who provides assistance in activities of daily living for an individual with stroke.

Caregivers highlight the importance of social support of family members and friends in helping the physical activities of care such as daily activities of living (Moore, Maiocco, Schmidt, Guo, & Estes, 2002) and in coping with stressful situation of caregiving (Pierce, Steiner, Havens & Tormoehlen, 2004; Saban & Hogan, 2012). Cohen and Wills (1985) explained two theories of social support which explain the ‘direct effect’ and ‘buffer influence’ of social support on well-being and mental health. The theory of direct effect explains that social support is favorable to well-being and health and buffering theory reflects the belief that social support acts as a defensive barrier against the negative influences of problems under high conditions of stress. Caregivers seriously need social support because they are in psychological and physical distress due to caregiving (Ostwald, Bernal, Cron, & Godwin, 2009; Schure et al., 2006). The importance of social support of friends and family members is important in a way that they can provide physical help to caregivers in carrying out the physical activities of stroke patients (Dewey et al., 2002; Moore et al., 2002). Emotional support is also identified as an important need of caregivers (Bakas, Austin, Okonkwo, Lewis, &Chachwick, 2002; Kerr & Smith, 2001). It has also been reported that caregivers, satisfied with their support system, were having feelings of sound health (Pushkar, Reis, Markiewicz, & Andres, 1995; Tang & Chen, 2002). The high level of social support is also associated with low levels of depression and high well-being in caregivers of stroke patients (Grant et al., 2006; van den Heuvel, de Witte, Schure, Sanderman, & Meyboom-de Jong. 2001). Moreover, it has also been determined that less stress is associated with good health, coping and social support in spousal caregivers (Carnwath & Johnson, 1987; Ostwald et al., 2009).

The theory of stress and coping by Lazarus and Folkman (1984) also takes social support into account in their model. According to Lazarus and Folkman (1984), coping is defined as the cognitive behavioral strategies to reduce or deal with the internal and external stressors that are evaluated as challenging and surpassing the person’s resources. Lazarus (1999) identified that two major types of coping strategies such as problem focused coping and emotion focused coping, are employed in any stressful situation. The problem focused coping is aimed at directly dealing with the problematic situation such as to decide what to do, and emotion-focused coping is concentrated at dealing with the emotions related to stress. Emotion focused coping covers various types of strategies which include avoidance focused coping refers to the efforts to avoid a stressful encounter (Holahan & Moos, 1987). Other strategies of emotion focused coping are ‘active distractive coping’ which involves active efforts but not problem focused efforts and ‘religion focused coping’ which entails reciting Quran more than usual (Kausar & Anwar, 2010). These religious practices help caregivers to receive strength and also organize their thoughts and feelings (Greenwood, Mackenzie, Wilson, & Cloud, 2009; Pierce et al., 2008).

Problem focused coping strategies are perceived as better ways to deal with stressful situations and avoidant coping strategies are considered as an indictor of negative responses to stressful situations (Holahan & Moos, 1987; Scherk, 1999). Caregivers who use problem focused coping experience less depression (Saad et al., 1995) and offer greater level of participation (Rochette, Bravo, Desrosiers, St-Cyr, & Bourget, 2007). People using problem focused coping tend to seek social support whereas people employing emotion focused coping are not liable to seek social support (Rankin, 2011). The lack of social support and unhealthy coping styles make the caregivers experience psychological distress such as anxiety (Robinson-Smith & Mahoney, 1995) and depression (Han & Haley, 1999; van den Heuvel et al., 2001). This psychological distress is due to demanding nature of caregiving and decreased social activity (Bakas, Austin, Jessup, Willaims, & Oberst, 2004; Chumbler, Rittman, van Puymbroeck, Vogel, & Qin, 2004).

Psychological distress is defined as an unpleasant mood or an affective state that can be measured as positive or negative affect usually assessed as subjective symptoms of depression and/or anxiety (Portenoy & Bruera, 2003). According to the ‘cognitive model’, negatively biased cognition is the core process in psychologically distressed (Barlow & Durand, 1999). The distressed patients hold negative view of themselves, world, and the future (Weinrach, 1988). Previous researches emphasize that caregivers of stroke patients are reported to experience high level of anxiety and depression (Chow, Wong, & Poon 2007; Koerner& Kenyon, 2007). The mental health state of caregivers fluctuates from irritability, anxiety and tension to depression and sadness (Han & Hanley, 1999; Khalid &Kausar, 2008). Physical care activities particularly providing assistance with toileting, disturbances in mood and deficits in memory cause significant emotional stress in stroke caregivers (Haley, Lamonde, Han, Burton, & Schonwetter, 2009). The caregivers of patients with less functional independence experience more depressive symptoms (Bakas et al., 2004; Chumbler et al., 2004).

In Pakistan, according to World Health Organization (WHO; 2002), the total morality due to stroke was 78,512 (Judith & George, 2004). Approximately 15 million people suffer from stroke each year worldwide, leaving one-third permanently disabled (WHO, 2012). Out of these, five million patients decease and five million become permanently incapacitated which burdens family and the community (Adams, Mckie, & Brambilla, 1998). The occurrence of stroke is increasing day by day and it is affecting young people too. The episode of stroke incapacitates the patients and their abilities to perform daily living activities. The responsibility on women increases as they get indulged in multiple tasks such as carrying out household chores at home and performing caregiving tasks at the hospital. Unfortunately, in Pakistan rehabilitation centres and hospitals do not provide proper information to the family members regarding effective caregiving.

Despite the lack of appropriate knowledge and understanding of caregiving, the caregivers take care of the patients. The increased responsibility on caregivers and without formal information related to caregiving make the caregivers suffer from psychological distress. In addition, since caregiving responsibility mainly rests with the female family member who also takes care of other household chores, it adds to their ongoing routine activities. Conducting this type of research will help identify the distress experienced by caregivers and the effect of social support and coping on reducing distress. The main objective of this study was to explore relationship between perceived social support, coping strategies employed by the caregivers, and psychological distress experienced by them. Furthermore, it aimed to determine the factors predicting psychological distress in family caregivers of stroke patients.

Following hypotheses were formulated for the present research.

1. There is positive relationship between perceived social support and problem focused coping in family caregivers of stroke patients.
2. There is negative relationship between perceived social support and emotion focused coping in family caregivers of stroke patients.
3. There is negative relationship between perceived social support and psychological distress in family caregivers of stroke patients.
4. There is negative relationship between problem focused coping that is, active practical coping and psychological distress in family caregivers of stroke patients.
5. There is positive relationship between emotion focused coping that is active distractive coping and psychological distress in family caregivers of stroke patients.
6. Social support and coping are likely to predict family caregivers' psychological distress.

Method

Sample

The sample size (*N* = 90) was decided on the basis of g-power analysis with medium effect size of .5, $\alpha = .05$ with the power of .95. The participants that is, family caregivers of stroke patients were selected through purposive sampling strategy, from medical units of Government teaching hospitals of Lahore, Pakistan. For collecting data from caregivers, only indoor stroke patients were recruited first and their medical files were consulted to verify the inclusion and exclusion criteria.

Inclusion criteria for stroke patients. The stroke patients with the diagnosis of ischemic or hemorrhagic stroke, with substantial severity of disability such as stroke patients with paraplegia (impairment of motor and sensory function of lower extremities) and hemiplegia (paralysis of arm, leg and trunk on the same side of body) as written in the presenting complaints and history of present illness of the patients' hospital file and the patients accompanied by the primary caregivers, were included in the present study.

Inclusion criteria for family caregivers. After selecting the patients with the above mentioned criteria, the primary caregiver was chosen to participate in the present study who was primarily responsible for carrying out daily life activities of stroke patients such as feeding the patient through nasogastric tube, massage the patient's body, change his/her clothes, wash his/her body, empty the urine bag, and fulfilling other medical requirements such as taking the patient to other wards for medical check-ups, for MRI, and blood tests. The caregivers who had been providing care for, at least, last 2 months at home and currently be giving care at hospital, with the age range of 20-45 years and with the ability to understand and speak Urdu, were included in this study. The caregivers with any chronic medical condition were excluded.

Demographic and stroke related characteristics of the stroke patients and their caregivers are given in Table 1.

Table 1

Demographics and Disease Related Information (N = 90)

	Patients				Caregivers			
	f	%	*M*	*SD*	*f*	%	*M*	*SD*
Age (years)			61.6	17.4			34.9	8.3
Gender								
Men	31	34.4			14	15.6		
Women	59	65.6			76	84.4		
Education								
Illiterate	65	72.2			28	31.1		
Primary	9	10.0			14	15.6		
Middle	3	3.3			11	12.2		
Matric	8	8.9			18	20.0		
F.A	4	4.4			12	13.3		
B.A	1	1.1			4	4.4		
M.A					3	3.3		
Work Status								
Employed					20	21.1		

Continued…

	Patients				Caregivers			
	f	%	*M*	*SD*	*f*	%	*M*	*SD*
Unemployed					70	78.9		
Family Monthly Income (PKR)							21833	18306
Marital Status								
Single	5	5.6			19	21.1		
Married	85	94.4			69	76.7		
Widowed					2	2.2		
Duration of Stroke Treatment (months)			16.5	27.1				
Duration of Caregiving (months)							10.7	11.4
Family system								
Nuclear					56	62.2		
Joint					34	37.8		
Caregivers’ Relationship with Patient								
Daughter					36	40.0		
Daughter in law					19	21.1		
Grand Daughter					1	1.1		
Sister					5	5.6		
Sister in law					4	4.4		
Wife					5	5.6		
Mother					5	5.6		
Niece					2	2.2		
Son					9	10.0		
Brother					6	6.7		
Frequency of Stroke Episodes								
One Episode	71	78.9						
Two Episodes	15	16.7						
Three Episodes	3	3.3						
Six Episodes	1	1.1						
Nature of Residence								
Personal					76	84.4		
Rented					4	5.6		

Descriptive given in Table 1 showed that Mean age of the caregivers was 62 years and the majority was women, illiterate and married. Majority of the stroke patients suffered from at least one episode of strokeother than the present stroke episode and they had been seeking treatment for 17 months. Mean age of the caregivers was 35 years and majority of them were married and unemployed. They had been providing care for last 11 months. Moreover, the majority caregivers had their personal residence and were living in nuclear family system.

Measures

Demographic and stroke related information sheet. It was used to gather information related to demographic factors of stroke patients and caregivers. This sheet was prepared by the authors keeping in mind the research variables to be explored. In this demographic information sheet, the questions asked related to stroke patients were age, gender, education, duration of illness, number of earlier strokes, marital status, relationship with caregiver and any other physical illness. The factors related to caregivers were also probed such as age, gender, education, marital status, profession, family monthly income, caregiving duration, number of secondary caregivers, family system and residence.

Incapacity Status Scale (ISS). This scale was developed by Kurtzke (1981) and translated in Urdu by Noor-ul-Ain and Kausar (2012) to assess the physical disabilities of stroke patients which adversely affected their physical ability to perform daily living activities. This scale has 20 items rated on a Likert scale of 4-points ranging from 0=*normal* to 4= *extreme impairment*. There are 20 areas of functional disability that are climbing up stairs, ambulation, bowel functioning, taking bath, dressing up, grooming, food intake, vision, speech, audition, medical ailments, disturbances in mood and thought, mentation, fatigability, and sexual functioning. The total score primarily represents immobility status and dependence level in executing daily activities of living. Higher score on the scale reflect more severity of impairment. Internal consistency of this scale is .82 for the present study.

Multidimensional Scale of Perceived Social Support (MSPSS). This scale (Zimet et al., 1988 translated into Urdu by Qureshi & Tariq, 2011) was used to measure social support perceived by caregivers of stroke patients. It consisted of 12 items with three subscales namely Family Members Support, Friends Support, and Significant Others Support. Each subscale consisted of 4 items and has Likert scale of 7-points (from 1= *very strongly* to 7= *very strongly agree*). The higher the score on sub-scales of social-support, the more was social support perceived by the caregivers. For the present study, the cronbach's alpha of this scale of .90 was achieved.

Coping Strategies Questionnaire (CSQ). This was an indigenous questionnaire developed by Kausar and Munir (2004) in Urdu language for Pakistani population to measure coping strategies of the research participants. There were 62 items in the scale; each item was assessed on a Likert scale of 5-points (1= *does not apply*, 2= *not at all*, 3= *somewhat*, 4= *much*, 5= *very much*). The scale measures four categories of coping strategies that are: Avoidance Focused Coping (24 items), Active Practical Coping (16 items), Religion Focused Coping (13 items), and Active Distractive Coping (9 items). The higher scores on separate sub-scales of coping strategies' explain the increased use of respective strategy of coping. The internal consistency reliabilities of this scale were α= .17 for Active-Practical Coping, α= .21 for Active-Distractive Coping, α= .25 for Avoidance-Focused Coping, and α= .66 for Religious-Focused Coping. The relatively low level of reliability index would be due to stressful environment faced by the family caregivers of stroke patients.

Depression Anxiety Stress Scale-42 (DASS-42). The Urdu version of this scale (Lovibond & Lovibond, 1995) translated by Farooqi and Habib (2010) was used as a measure of anxiety and depression in caregivers of stroke patients. This scale has 3 sub-scales (Anxiety, Depression and Stress) with each subscale including 14 items. Anxiety, depression and stress were measured on state level such that the participants responded to the items according to their feelings since the time of caregiving. The responses on each item were rated on a 4-point Likert scale (ranging from 0=*did not apply* to 3= *applied very much*). The higher score on separate sub-scales indicated the higher the level of psychological distress experienced by caregivers. The alpha reliability of .87 for total DASS was acquired in the present study.

Procedure

First of all, the permission from head of departments and concerned authorities of all medical units of all selected hospitals was taken. The respective authorities were informed about nature and purpose of the research. Afterwards, the medical units of hospitals were approached and those indoor patients were selected who met the inclusion criteria after consulting the medical files of the patients. While staying in hospital, the accompanied family members were asked to nominate a primary caregiver so that data can be collected from that person there. The selected caregivers were informed about the nature and purpose of the present study. Written informed consent was taken from the participants. They were also assured about the confidentiality of their responses and their identity. Participants were also given the right to withdraw from participation at any time. It was also informed that the information they provided will only be used for research purpose. They were also given the opportunity to ask question related to research. First demographic form and then all five scales were administered by the researcher by asking the participant's responses. All the participants who were asked to participate readily agreed to participate in the research and were keen to know the findings.

Ethical Considerations

The permission of executing the present research was taken from Doctoral Program Coordination Committee and the suggestions given by the committee were incorporated. The permissions were sought from the authors for using their questionnaires in the present research. Written informed consent was signed by the caregivers after making them read an information sheet about the present research. In this way they were well informed of the rationale and purpose of the study, as well as their right of withdrawing from the research whenever they want to. Confidentiality was also ensured and also telling them that this information will only be used for research purpose only. No financial and other inducements were offered to the participants that were likely to coerce participation.

Results

In the present study, paired samples *t*-test was conducted to determine the differences in the various domains of social support perceived by family caregivers. In addition, paired samples *t*-test was run to compare different types of coping strategies such as active practical, active distractive, religion focused and avoidance, employed by family caregivers of stroke patients.

Table 2

Paired Samples t-test for Differences between Caregivers' Perceived Social Support (N = 90)

	Domains of Social Support	*M*	*SD*	*t*(89)	*p*	95% CI *LL*	95% CI *UL*	Cohen's *d*
Pair 1	Significant Others	4.68	1.10	1.65	.10	-1.27	.12	.15
	Family	4.83	.95					
Pair 2	Significant Others	4.68	1.10	7.59	.00	4.31	7.96	.97
	Friends	3.23	1.78					
Pair 3	Family	4.83	.95	8.23	.00	4.86	7.36	1.74
	Friends	3.23	1.78					

Note. CI= Confidence Interval, LL= Lower Limit, UL= Upper Limit

The results of paired-samples *t*-test show that there are significant differences in the various domains of social support perceived by family caregivers. Caregivers perceived the most social support from their family as compared to support from their friends. Moreover, caregivers perceived more social support from the significant others as compared to friends.

Table 3

Paired Samples t-test for Differences between Caregivers' Coping Strategies (N = 90)

	Domains of Coping Strategies	*M*	*SD*	*t*(89)	*p*	95% CI *LL*	95% CI *UL*	Cohen's *d*
Pair 1	Active Practical	7.14	.66	12.50	.001	1.35	1.86	2.65
	Active Distractive	5.53	1.15					
Pair 2	Active Practical	7.14	.66	8.74	.001	.59	.95	1.85
	Avoidance	6.37	.51					
Pair 3	Active Practical	7.14	.66	1.97	.05	-.00	.34	.27
	Religious	6.97	.59					
Pair 4	Active Distractive	5.53	1.15	6.21	.001	-1.09	-.57	1.32
	Avoidance	6.37	.51					
Pair 5	Active Distractive	5.53	1.15	12.12	.001	-1.67	-1.2	2.57
	Religious	6.97	.59					
Pair 6	Avoidance	6.37	.51	7.66	.001	-.76	-.45	1.62
	Religious	6.97	.59					

The results of paired-samples *t*-test indicate that there are significant differences in the type of coping strategies used by family caregivers of stroke patients. Caregivers were using more active practical coping in their caregiving process as compared to other types of coping such as active distractive coping, avoidance coping and religious coping. This indicates that the caregivers were actively and practically trying to solve the problems or troublesome situations. Among the other three types that is, active distractive coping, avoidance coping and religious coping, caregivers were employing religious coping, indicating that caregivers tried to go through their difficult time by indulging themselves in religious activities and rituals more than usual. Last, caregivers were using more avoidance coping as compared to active distractive coping, indicating that caregivers tried to avoid the stressful situation by withdrawing or getting isolated.

Pearson Product Moment Correlation was run to determine the relationship between demographic characteristics of stroke patients and their family caregivers, social support, coping and psychological distress of family caregivers (see Table 4).

Caregivers' social support by significant others and family has significant negative relationship with depression in family caregivers of stroke patients. A significant negative relationship is found between family monthly income and psychological distress that is, anxiety, depression and stress. The relationship of caregivers' social support by significant others and friends is found to be positively correlated with family monthly income of caregivers.

Table 4

Correlation between Demographic Characteristics and Study Variables (N=90)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1.Patient's Gender	-																	
2.Patient's Age	.07	-																
3.Treatment Dur (m)	.08	.18	-															
4.Caregiver' Gender	.46**	-.08	.07	-														
5.Caregivers' Age	.12	.42**	.02	-.12	-													
6.Monthly Income	.06	.09	-.01	-.06	-.07	-												
7.Caregiving Dur (m)	.16	.18	.39**	.00	.12	.15	-											
8.Stroke Severity	-.05	.31**	-.06	.03	.16	-.10	-.15	-										
9.SS Sig Others	.11	-.02	.03	.06	-.05	.23*	-.05	-.23*	-									
10.SS Family	.05	-.19	-.07	.18	-.15	.19	-.06	-.16	.68**	-								
11.SS Friend	-.01	.11	-.06	-.02	.14	.32**	.10	.02	.28**	.21*	-							
12.Active Practical	.05	-.06	.07	.06	-.01	.04	.09	.03	.10	.07	.19	-						
13.Active Distractive	-.11	-.02	.05	-.09	.04	-.03	.03	.05	.11	.07	.18	.19	-					
14.Avoidance Coping	.22*	.08	-.00	-.07	.09	-.04	.02	.13	.11	-.03	-.00	.00	-.03	-				
15.Religious Coping	-.01	-.01	.02	-.00	.14	-.04	-.04	-.02	.14	.07	.13	.18	.30**	.09	-			
16.Anxiety	-.02	-.04	-.07	-.03	.09	-.22*	.14	-.05	-.12	-.12	-.14	.05	.04	.19	.18	-		
17.Depression	-.07	.15	-.01	-.09	.13	-.29**	.10	.04	-.27*	-.27*	-.09	-.11	-.11	.19	.03	.62**	-	
18.Stress	.10	.09	.06	-.09	.05	-.28**	.15	.03	-.00	.00	.09	.02	.04	.14	.09	.63**	.52**	-
M	-	61.6	16.5	-	34.9	2183.3	10.8	74.0	18.7	19.3	12.9	57.1	24.9	76.4	45.3	18.2	16.1	20.4
SD	-	17.4	27.1	-	8.3	18306.4	11.4	8.5	4.4	3.8	7.2	5.3	1.2	6.2	3.8	6.5	5.1	5.9

Note. Patients' and Caregivers' Gender (0=women, 1=men), Treatment Dur (m) =Treatment Duration (months), Caregiving Dur (m) = Caregiving Duration (months),SS Sig Others = Social Support by Significant Others

$^{*}p<.05$, $^{**}p<.01$

Table 5

Multiple Regression (Stepwise) for Predicting Family Caregivers' Psychological Distress (N=90)

Variables	Anxiety	Depression		Stress
	Model 1	Model 1	Model 2	Model 1
	B	*B*	*B*	*B*
Constant	19.90***	17.89***	23.39***	22.39***
Family Monthly Income	-.00*	-.00**	-.00*	-.00**
Social Support (SO)				
Social Support (Family)			-.29*	
Social Support (Friends)				
R^2	.05	.08	.13	.08
F	4.66*	7.87**	6.41*	7.89**
ΔR^2			.05	
ΔF			4.63*	

Note. SO= Significant Others
$^{*}p < .05.$ $^{**}p < .01.$ $^{***}p < .001.$

Multiple regression analysis (Stepwise) is carried out for each domain of psychological distress that is anxiety, depression, and stress separately with characteristic of family caregivers, social support and coping as predictors (see Table 5).

It has been shown in Table 5 that the model for anxiety comes out to be significant. The model explains 5% of the variance for caregivers' anxiety. Family monthly income of caregivers is a significant negative predictor of caregivers' anxiety. Two models for caregivers' depression come out to be significant. In model 1, family monthly income explains 8% of the variance and in model 2, caregivers' social support by family comes out to be a significant negative predictor and explains additional5% of the variance in caregivers' depression. For caregivers' stress only one model comes out to be significant. Family monthly income is a significant negative predictor of caregivers' stress and it accounts for 8% of the variance.

Discussion

Results of the present study demonstrated that family caregivers mainly preferred the active practical coping, although some caregivers did choose emotion focused coping styles such as religious coping, avoidance coping. The least used emotion focused coping strategy was active distractive coping. Consistent with the previous reports the coping strategies mostly used by caregivers of stroke survivors were acceptance, getting social support, problem solving and finding help on religious basis. However, the least common coping styles used by caregivers were denial and distracting negatively (Kumar, Kaur, & Reddemma, 2015). In another study, the coping strategy most frequently used by family caregivers of cancer patients was active planning, and the least used coping attitude was avoidance isolation (Karabulutlu, 2014). In the caregivers of patients with Alzheimer's diseasetask-focused coping was the most commonly used style of coping (Lovelace, 2012).

Notably, caregivers perceived most social support from family and those caregivers who perceived social support from family were less depressed. In the present study, family caregivers were taken from hospital settings and at least one family member or a friend was available to the caregiver for help and support. It was also observed that relatives of patient were also visiting very frequently. Moreover, when people come to visit the stroke patient, they console the caregivers by sharing their experiences of stressful events, giving hope to caregivers and may also assist them in lessening their depression. Due to increased social support by family and significant others, caregivers experienced less depression. Theorists of social support (Cohen & Wills, 1985) also claimed the direct and buffering influence of social support. The theory of direct effect explains that social support is favorable to well-being and health irrespective of the amount of stress experienced by people. The buffering theory asserts that social support serves as a defensive barrier against the negative effects of problems under high conditions of stress. The decreased social support may lessen a person's ability to handle stressful events.

Previous researches emphasized that caregivers need social support because they often report physical and psychological distress as a result of caregiving (Schure et al., 2006; Koerner& Kenyon, 2007; Chow et al., 2007; Ostwaldetal., 2009). In another study similar results were found that the caregivers with greater self-efficacy and greater social support experienced decreased strain, greater psychological health and strength (van den Heuvel et al., 2001). A previous study determined that increased depression in caregivers is/ may be due to physical disability of patient, decreased social activity and level of dependency of the patient (Bakas et al., 2004; Chumbler et al., 2004). The lack of social support and the usage of unhealthy coping strategies make the caregiver experience psychological distress such as anxiety (Robinson-Smith & Mahoney, 1995) and depression (Han & Haley, 1999; van den Heuvel et al., 2001).

Results of the present study shed light on the importance of characteristics of family caregivers with reference psychological distress experienced by caregivers. The present study provided evidence that caregivers' with higher family monthly income were less anxious, depressed and stressed. Lack of financial resources is itself a great distress. The adequate financial resources may enable caregivers to take help from professionals regarding adequate process of caregiving, assistance in caregiving or for counseling to deal with distress. However, in the present study, caregivers had abandoned their jobs (if) for the sake of caregiving and majority belonged to lower economic status. In a previous study it was declared that more than one-third of the caregivers had used their savings, lowered down the expenses on home maintenance and reduced expending money on their personal health or dental care. Out-of-pocket expenses were higher among caregivers who reported health problems or emotional problems (Evercare, 2007). According to Lazarus and Cohen (1977) life is very difficult in lower social classes because of greater number of hassles. The family encounters financial problems and they are not capable to hold the expenditure of professional care which is required by the patient. Ultimately, the financial burden began due to caring of a stroke survivor is harmful to the mental health of the caregiver. Kausar (2001) stressed that financial issues and carer-patient relationship are significant factors in predicting caregivers' depression.

Limitations and Suggestions

The possible shortcomings of the present study were the disproportionate sample on the basis of gender. The proportion of women caregivers was quite higher than men caregivers. The data collection proved to be difficult somehow because several number of caregivers rejected to participate in the present study due to the problem of language barrier. The caregivers were not able to understand Urdu completely. Future research should include caregivers who are educated and belonged to diverse socio-economic class. It would be more desirable to collect data from community and hospitals both for making more in-depth comparisons.

Implications

Health service agencies and social workers must recognize the importance of psychological impact on caregivers of stroke patients. The hospitals should provide economical, free and accessible counseling services for caregivers because the health of patient depends on caregiver too. If much attention is paid to the mental health of caregivers, they may go through caregiving process with ease. Public seminars and conferences should be arranged to educate caregivers about the process of effective caregiving.

Conclusion

It is concluded that psychological distress experienced by the caregivers of stroke patients can be reduced by providing greater social support. Family monthly income also plays a vital role in psychological distress experienced by the family caregivers. As it can be seen in this research that the role of caregivers is very demanding and dynamic and their mental health can be improved through use of problem focused coping strategies and provision of social support to the caregivers, which in turn would help them get along with their caregiving experience easily and effectively.

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