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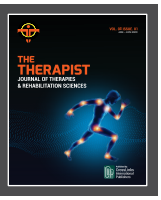

Original Article

Spiritual Perspectives and Well-Being among Stroke Patients in Rehabilitation Centres of Four Tertiary Care Hospitals of Pakistan

Muhammad Suliman[1], Muhammad Sohail[2], Muhammad Yaseen[3], Amir Sultan[2*], Adnan[4] and Pamela G Reed[5]

[1]Upper Swat College of Nursing, Swat, Pakistan
[2]Department of Nursing, Saidu Group of Teaching Hospital, Swat, Pakistan
[3]Hayatabad College of Nursing and Allied Health Sciences, Peshawar, Pakistan
[4]Sarhad College of Nursing Science, Mardan, Pakistan
[5]Department of Nursing, University of Arizona, Arizona, USA

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***Corresponding Author:**
Amir Sultan
Department of Nursing, Saidu Group of Teaching Hospital, Swat, Pakistan
Amirsultan204@gmail.com

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ABSTRACT

Spiritual wellness acknowledges our search for deeper meaning in life. Spirituality can make it easier to cope with the physical and cognitive consequences of a stroke, as well as with any other illness. **Objective:** To identify spiritual well-being and perspective of stroke patients and its association. **Methods:** A total of 420 stroke patients with Epi info sample size calculator were selected from the rehabilitation centres of the tertiary care hospitals of Peshawar, Abbottabad and Swat. Responses recorded through demographic section as well as reliable and validated Likert type quantitative tools in an analytical cross-sectional study. **Results:** Of the 420 participants, 164 (39%) were female. The Spiritual Index of Well-being Scale (SIWB) had a mean score of 40.83 out of a possible 60 and the Spiritual Perspective Scale (SPS) had a mean score of 49.06 out of a possible 60. Spiritual perspectives and well-being were reported to be statistically significant ($p < 0.05$) with each other and with several of the demographic indices on ANOVA and post hoc tests (Games-Howell). The Pearson association between spiritual perspectives and wellbeing (r) was likewise shown to be positively highly statistically significant ($r = 0.530$, $p < 0.000$). **Conclusions:** The findings of the research complement and justify Reed's theory's theoretical assertions. Spiritual Perspectives and practises serve as a buffer and contribute to the growth of Spiritual Well-being. The inclusion of spiritual health as a component of holistic health during medical interventions has implications.

INTRODUCTION

Stroke is an umbrella term or spectrum of disorders mainly sudden loss of brain function or focal neurological deficit because of lack of blood supply to neurological tissues [1]. WHO reported that stroke is the second leading cause of disease in the world just after the ischemic heart disease, with first time worldwide stroke occurs after every two seconds[2]. In UK, stroke is said to strike every 5 minutes, with 100,000 cases each year, and 1.3 million stroke survivors over there [3]. In Pakistan, some earlier studies reported a very high prevalence rate like 4.8% in a community-based population studies [4], and 19% (the highest reported in the region almost implausible) in a study conducted in small urban slum with low socio-economic status [5]. However, the results of these studies were far much higher because of the limitation in small sample sizes, weak study designs and targeted limited single communities etc from the prevalence of other South Asian countries like India, Bangladesh and Sri Lanka which reported round about 1% prevalence [6-8]. A more accurate prevalence of stroke reported 1.2% by integrated population health survey in the 24 districts of Khyber Pakhtunkhwa province [9]. Stroke is the most crippling and

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lethal disease as reported is the largest cause of disability and dependency [10]. After stroke manifestations, a number of symptoms have been reported in research studies including physical, psychosocial and spiritual infirmities, confusion states, pain, altered speech, muscle power, memory, mood, attention, anxiety, depressive disorders, suicidal thoughts, and disrupted quality of life [11-13]. In a discipline, theory guides the research and practice and all these three constructs have a spiral connection. In nursing, Spiritual health being an integral component and in the realm of holistic care completion, Pamela G. Reed stipulated her mid-range nursing theory of Spiritual health, which not only covers the different stages of lifespan, the end-of-life care and geriatrics but also sociocultural and spiritual context application and gained well-refute from the Americas to Asia [14]. Spiritual well-being is a sense of meaning, purpose, or power within or from a transcendental source, on subjective well-being [15]. The subjective assessment of one's own sense of purpose in life, resilience in the face of adversity, and capacity to design one's own trajectory in life are all indicators of one's spiritual well-being [16]. According to a systematic review of CVA (Cerebrovascular accident) survivors, spiritual well-being necessitates changes to one's sense of self, sense of connectedness to others, and spiritual connections in addition to psychosocial and physical reconstruction [17]. Spirituality is transcendental in nature and affects an individual's traits and way of life in response to susceptibility and the onset of disease or illness. There is very little information available regarding the specific spiritual needs of particular patient subgroups due to the multifaceted nature of healthcare needs and myriad management in Stroke rehabilitation [18]. Pakistan, the second-most populous Muslim nation in the world, about the lack of research on the impact of spirituality on health and illness [19]. The significance of the current study was well supported by an extensive review of the literature on spiritual well-being in the context of health, which demonstrates how it is crucial to comprehend patients' spiritual needs in order to develop patient-centred, evidence-based holistic care that supports multidimensional well-being.

METHODS

In this study cross-sectional analytical design was used in the study. As a sample size, 420 Stroke patients were obtained through OpenEpi sample size calculator by putting the parameters of prevalence 50%, 0.05 significance level, 95% confidence level, and bound of error 05% with design effect of 1.1 from the physiotherapy and rehabilitation centres of four tertiary care teaching hospitals during April, 2019 to August, 2019. Consecutive sampling strategy was utilized as stroke patients used to visit health facilities of physiotherapy and rehabilitation centres. Those stroke patients were included who had at least three months of stroke symptoms and were diagnosed on CT scan. TIAs, not willing to informed consent and participation and those seriously ill like unconscious, comatose, memory and psychiatry problems were excluded. The data from the patients were collected through two valid and reliable questionnaires. The spiritual perspective scale (SPS) evaluates a person's adherence to particular spiritual beliefs and participation in particular spiritual practises. Ten items make up the SPS, and responses are chosen from a 6-point Likert scale. The SPS questionnaire contains ten items through 6-point Likert scale range from 1-Strongly Disagree to 6-Strongly Agree. The current study's mean spiritual perspective score was 49.06 out of 60, which exhibited high participation in spiritual activities and initiatives. The validity of SPS varies from 0.89 to 0.95 [20]. The second instrument of the study was spirituality index well-being (SIWB). This scale was created in 2004 by Daaleman and Frey and has 12 items: 6 from the domain of self-efficacy and 6 from the domain of life schemes. Each question has a 5-point scale with 1 (Strongly Agree) being the highest response and 5 being the lowest (Strongly Disagree). The average Spiritual Well-being Score among the stroke patients in the current study was 40.83 out of 60, indicating a moderate level of Spiritual Well-being. The Cronbach's alpha of SIWB is 0.91 [21]. Data collected after approval from the Advance Studies Review Board and Ethical Board of Khyber medical university. Frequency and percentages were calculated for the categorical variables while mean and standard deviation score for continuous variables. Analysis of variance (ANOVA), post hoc (Games-Howell), and Pearson correlation tests for the relationships between variables were calculated through Statistical Package for Social Sciences (SPSS) version 25.0 used for data analysis.

RESULTS

Table 1 shows Demographic characteristics of participants including gender, age, educational status, employment status, religion, length of a stroke's occurrence, hospital and co-morbid. Total number of participants were 420.

Characteristics	Dimensions	Frequency (%) (n=420)
Gender	Male	256 (61.0%)
	Female	164 (39.0%)
Age	26 through 35	12 (2.9%)
	36 through 45	60 (14.3%)
	46 through 55	66 (15.7%)
	56 through 65	124 (29.5%)
	66 and above	158 (37.6%)
	No education	230 (54.8%)

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Educational status	Matric and below	128 (30.5%)
	Intermediate	22 (5.2%)
	Degree	40 (9.5%)
Employment status	Nil	246 (58.6%)
	Public Employee	48 (11.4%)
	Private Employee	16 (3.8%)
	Self-employment	110 (26.2%)
Religion	Muslim	416 (99.0%)
	Others (Ismaili)	4 (1%)
Length of a stroke' soccurrence (Months)	3 to 12	232 (55.2%)
	13 to 24	94 (22.4%)
	25 to 36	64 (15.2%)
	37 to 48	20 (4.8%)
	49 and above	10 (2.4%)
Hospital	SGTH Swat	120 (28.6%)
	ATH Abbottabad	104 (24.8%)
	HMC Peshawar	104 (24.8%)
	LRH Peshawar	92 (21.9%)
CO-morbid	None	26 (6.2%)
	Hypertension	166 (39.5%)
	Diabetes Mellitus	60 (14.3%)
	Cardiovascular problem	6 (1.4%)
	Respiratory disease	4 (1.0%)
	Renal disease	2 (0.5%)
	More than one disease	156 (37.1%)

Table 1: Demographic Characteristics of the Study Participants (N=420)

For the purpose of determining the precise difference of the true difference or which category precisely differs, a post hoc test is advised to be applied. ANOVA produced statistically significant results when the spiritual index of well-being was used as a dependent variable and compared to the categories of spiritual perspectives. In addition, significant pairwise differences between the three categories of the spiritual perspective scale and the spiritual well-being index, as measured. Only the category of scores 31 to 45 with the category 46 and above showed a significant statistical difference ($p < 0.000$), implying that those categories of stroke patients on spiritual views score significantly better for spiritual well-being. The Pearson correlation test revealed a positive relationship between the mean score of spiritual perspective and the average score of spiritual well-being ($r = 0.530$, $p < 0.000$). Additionally, the SPS mean score was shown to be strongly correlated with both age in years ($r = 0.290$, $p < 0.000$) and the number of months since the stroke ($r = 0.136$, $p < 0.049$) (Table 2).

Parameter		Total SPS Score	Total SIWB Score
Total SPS Score	Pearson Correlation	1	.530**
	Sig. (2-tailed)		.000
	N=420	210	210
Total SIWB Score	Pearson Correlation	.530**	1
	Sig. (2-tailed)	.000	
	N=420	210	210

** Correlation is significant at the 0.05 level (2-tailed)

Table 2: Correlation of SPS with SIWB score

DISCUSSION

Most of the studies in the literature explored the spiritual paradigm in stroke population in qualitative studies or those quantitative studies in which different tools from other disciplines used rather than nursing. The average score for the Spiritual Perspective across all ethnic groups was 50.46 for Pashtuns, 49.50 for Punjabis, 45.04 for Hazaras, and 39.50 for others. When compared with the cultural groups of Appalachians, this result practically equals their average score of 48 on the spiritual perspective scale [22]. One study indicated that the homeless population's average score for Spiritual Perspectives was 47.80, mostly in shelters with Christian backgrounds [23]. Another study on the Spiritual Perspectives and practises of hospice and palliative care nurses found that they had a mean score of 49.3 on the Spiritual Perspective Scale [24]. Through the Pearson correlation test, there are statistically significant and positive relationships between spiritual perspectives and age and length of stroke. The findings are similar with a study that conducted for the spiritual perspective and health, that shows significant correlation with race and education, while the age of participants, race and gender are statistically significant reveals through MANOVA [25]. In the current study result, there is a statistically significant association between Spiritual Perspectives score on a continuous variable scale and age ($r = .29$, $p < 0.000$). Coward also found moderate correlation of self-transcendence being a construct of spirituality with older age and female gender in healthy population [26]. Other studies contrarily show lack of such statistical significance in the interventional arm in old age or late life participants' studies [27]. Spiritual Perspectives comprised matters such as participation in spiritual practises and beliefs, opinions, and interactions with others. The findings are also consistent with a study of Filipino women with breast cancer in which significant association found among Spiritual Practices, Self-transcendence and Spiritual Well-being [28]. A study of patients with haemodialysis, the involvement of significant others and a growing awareness of Spirituality as a beneficial tool for improving well-being [29]. Similarly, another study of the caregiver's burden

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related to the haemodialysis patients correlated with spiritual well-being found to be inversely related ($p < 0.001$, $r = -0.41$) positively associated on Spearman correlation test in Kerman, Iran [30]. In cross-sectional research of women with gynaecological cancer, higher levels of Spiritual practise were found to be precursors to Self-transcendence and to be associated with higher levels of Spiritual well-being [31]. Likewise, a longitudinal cohort study on volunteers in the sanatorium for training spiritual practises enhancement has shown that they tend to exhibit good psycho-spiritual well-being as well as spiritual growth and a decreased fear of death [32].

CONCLUSIONS

People develop spirituality as a cultural and religious concept and as a significant source of coping mechanisms in their state of vulnerability in order to find consolation and salvation. Spiritual needs and sustenance are just as vital to survival as are physiological demands because the human spirit is the inner core and the source of all life. Spiritual views have the potential to be strengthened for the effective acquisition of spiritual well-being, happiness, and quality of life due to the statistical significance of the findings and their status as protective variables.

Conflicts of Interest

The authors declare no conflict of interest.

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