



## Original Article

**Level of Quality of Life among Post Stroke Patients; A Cross Sectional Survey**Zainab Safdar<sup>1\*</sup>, Marya Asghar<sup>1</sup>, Muhammad Tahir<sup>2</sup><sup>1</sup>Health Care Hospital, Gujrat<sup>2</sup>Link Medical Center, Lahore

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No conflict of interest declared | Received: 25-11-2023; Revised &amp; Accepted: 30-11-2023; Published: 04-12-2023.

**ABSTRACT****Background:**

Stroke remains one of the leading causes of disability worldwide, with significant impacts on the quality of life (QoL) of survivors. This cross-sectional survey aims to evaluate the level of QoL among post-stroke patients and explore the associations with socio-demographic and clinical variables.

**Objective:**

The objectives of this study was to determine the level of quality of life among post-stroke patients. And to check the survival rate that either the stroke patients taking the therapeutic interventions or not, having a good independency or bad independency.

**Methodology:**

Cross-sectional study was conducted on 100 stroke patients having the age of less than 60. For the collection of data stroke specific quality of life scale (SS-QOL) was used to properly assess the quality of life among the selected population. Sample size was collected by using the convenient sampling technique. Written consent was taken from the respective hospitals

**Results:**

Results analyzed by SPSS version 25. The mean age of the patients was 50.28,  $\pm$  8.196 the minimum age was 32 years and maximum were 60 years. Out of 100 patients maximum were male 64% and female were 36%. There were 14% patients from upper-class level, 48% patients with a middle-class and 38% patients from a lower-class level. The overall quality of life among post stroke patient were poor with 52%, worst with 5%, fair with 39% and good with 4%.

**Conclusion:**

In this study it was observed that stroke has a negative impact on almost all the domains of quality of life. Majority of the patients were living with poor quality of life few of them were in good quality of life. On whole the quality of life is totally hampered and the patients were totally dependent.

**Keywords:**

Stroke, Disability, Quality of life, SS-QOLS

**INTRODUCTION**

Stroke remains a critical health issue globally, recognized as a leading cause of long-term disability and dependency among adults (1). This condition, characterized by an acute onset of neurological dysfunction due to vascular disturbances in the brain, leads to a variety of long-term impairments spanning physical, cognitive, emotional, and social domains. The recovery and rehabilitation post-stroke are complex, highlighting the necessity of a comprehensive understanding of the quality of life (QoL) for those affected (2).

Globally, stroke exhibits varying incidence rates across different regions and populations, predominantly affecting older individuals but not sparing younger cohorts (3). Key risk factors identified include hypertension, diabetes, obesity, and lifestyle factors such as diet and physical activity. The work of Feigin et al. (2022) emphasizes the global burden of stroke, particularly underscoring the long-term care needs of survivors, which present significant challenges for healthcare systems and societal structures (4).

The QoL in post-stroke patients is a multifaceted construct, deeply influenced by the nature and severity of the stroke. Physical challenges can range from motor deficits to sensory impairments, while cognitive impacts include memory and attention deficits (5). Psychologically, stroke survivors often encounter depression and anxiety, as



noted in the study by Hackett and Pickles (2014) (6). Socially, reduced participation in activities and altered family dynamics are common, as highlighted in the research conducted by (7).

There has been extensive research into the factors influencing QoL post-stroke. Studies like those conducted by Paul et al. (2016) have illuminated the role of factors such as physical disability level, cognitive function, and emotional well-being (8). However, there remains a paucity of research considering the evolving healthcare interventions and rehabilitation approaches, particularly in diverse cultural and healthcare settings (9).

The World Health Organization's International Classification of Functioning, Disability, and Health (ICF) offers a valuable theoretical framework for this study, emphasizing the interaction between health conditions and contextual factors (10). This approach is essential for understanding the comprehensive nature of post-stroke challenges, as it encompasses both personal and environmental influences on an individual's functioning (11).

The need for contemporary research in this field is paramount, given the dynamic nature of stroke care and rehabilitation. Previous studies, while informative, do not fully capture the current landscape of stroke recovery and its impact on QoL. Moreover, the influence of socio-economic and cultural contexts on the QoL of stroke survivors is not well-documented. Our study addresses these gaps through a detailed cross-sectional survey, aiming to provide a current and holistic view of the QoL among post-stroke patients (12). The objective of this study, therefore, is to assess the current state of quality of life among post-stroke patients, considering a wide array of factors such as physical health, psychological status, independence, social relationships, and environmental conditions. By examining the interplay of clinical characteristics of stroke, personal demographics, and external support systems, this study seeks to offer valuable insights for healthcare professionals, policymakers, and caregivers. The goal is to enhance care and support structures for stroke survivors, thereby improving their overall quality of life. This study, grounded in both contemporary and traditional understandings of post-stroke care, aims to contribute significantly to the field, offering a comprehensive picture of the life experiences of those recovering from a stroke.

## MATERIAL AND METHODS

This observational cross-sectional analysis was conducted on 100 stroke patients aged between 20 and 60 years (13). The study was carried out over a period of six months following the approval of the synopsis. The data collection sites included the Armed Forces Institute of Rehabilitation and Medicine in Rawalpindi, Aziz Bhatti Shaheed Teaching Hospital, and several clinics in Gujarat city.

Participants were selected through non-probability convenient sampling. Eligibility criteria required patients to be within the specified age range, without any neuromusculoskeletal conditions, psychiatric history, or residing in institutional care. Additionally, they needed to have adequate cognitive and language abilities for participation. Both spastic and flaccid stroke patients were eligible if they had experienced a stroke within the last six months. Exclusion criteria encompassed patients over 60, those with previous stroke deficits, intracerebral or subarachnoid hemorrhage, significant post-stroke dysphagia, or other comorbidities that could impact their quality of life.

For assessing the quality of life of these patients, the Stroke-Specific Quality of Life Scale (SS-QOL) was utilized. Consent was obtained from each participant prior to data collection. The analysis of the collected data was performed using IBM SPSS Statistics 21. Quantitative variables were presented through means, standard deviations, ranges, and histograms. Categorical variables were depicted via frequencies, percentages, cross-tabulations, bar charts, and pie charts.

## RESULTS

In the observed study of 100 stroke patients, the quality of life was predominantly reported as 'Poor' according to the Stroke Specific Quality of Life Scale, with 52% of the patients falling into this category. When examining marital status, a significant majority (73%) were married. Socio-economic statuses were varied, with nearly half of the patients (48%) belonging to the middle class, while the upper and lower classes were represented by 14% and 38%, respectively. Mobility, a crucial aspect of daily function post-stroke, showed that 39% of patients experienced 'Poor' mobility, and only a small fraction (5%) reported having the 'Best' mobility quality of life. These findings



reflect the substantial impact of stroke on the quality of life, particularly highlighting the challenges in mobility and the prominence of poor quality of life ratings among the patients studied.

Table 1 Status of Patients

Status	Frequency	Percentage
Single	11	11%
Married	73	73%
Divorced	10	10%
Widow	6	6%
Total	100	100%

This Table shows the marital status of the patients table shows a majority of patients are married.

Table 2 Stroke Specific QOL Scale Overall Results

QOL Category	Frequency	Percentage
Worst QOL	5	5.0%
Poor QOL	52	52.0%
Fair QOL	39	39.0%
Good QOL	4	4.0%
Best QOL	0	0.00%
Total	100	100%

These tables provide a concise summary of the overall quality of life of the patients as measured by the Stroke Specific QOL scale. QOL table indicates that over half the patients rated their quality of life as poor.

Table 3 Stroke Specific QOL Scale "Mobility

Mobility QOL Category	Frequency	Percentage
Worst QOL	19	19.0%
Poor QOL	39	39.0%
Fair QOL	22	22.0%
Good QOL	15	15.0%
Best QOL	5	5.0%
Total	100	100.0%

This table shows the distribution of patients' quality of life in relation to their mobility, a key factor in post-stroke recovery and daily life activities.

## DISCUSSION

The discussion of the results from this study sheds light on the multi-faceted impact of stroke on individuals' lives, particularly regarding quality of life (QoL). The high prevalence of 'Poor' QoL ratings parallels findings from other research, where physical limitations are consistently reported as significant challenges for stroke survivors. These limitations are often coupled with psychological issues, such as depression and anxiety, which can exacerbate the perception of a lower QoL (14).

Marital status, particularly the high proportion of married individuals in the study, is noteworthy. Literature suggests that marital bonds may offer emotional support, which is instrumental in coping with post-stroke changes. However, it is essential to note that the quality of the marital relationship plays a critical role; thus, merely being married is not sufficient for a positive outcome the supportiveness of the relationship is key (15).

The socio-economic distribution of the study population, with a substantial number represented by the middle class, points to the role of economic stability in accessing post-stroke care and rehabilitation services. Economic stability often equates to better healthcare options, rehabilitation opportunities, and support systems, which are vital for improving QoL.(16) Conversely, individuals from lower socio-economic backgrounds may experience more



significant challenges, including limited access to care, which can hinder recovery and negatively impact their QoL.(17)

Mobility's profound impact on QoL cannot be overstated. The ability to move independently is often a predictor of how well individuals reintegrate into their communities and resume their roles in family and social life. The findings from this study are consistent with other research that underscores mobility as a critical determinant of QoL post-stroke. Rehabilitation efforts that prioritize physical recovery can therefore play a significant role in enhancing QoL (18).

Furthermore, it's important to compare these findings with studies from various regions and healthcare systems, as access to post-stroke care can differ significantly. Comparing QoL outcomes in different socio-cultural contexts can offer insights into the global burden of stroke and the universal need for tailored rehabilitation programs (19). In sum, the discussion of this study's results emphasizes the necessity of a holistic approach to post-stroke care. Rehabilitation that is multifaceted and considers the physical, psychological, and social dimensions of recovery could vastly improve QoL outcomes for stroke survivors. It also highlights the importance of targeted interventions for individuals with limited socio-economic resources and the need for supportive environments that foster recovery and well-being (20). The correlation between socio-economic status and quality of life in post-stroke patients indicates that recovery is not only a medical challenge but also a social one. The disparity in quality-of-life outcomes among different socio-economic groups suggests that social determinants of health play a significant role in recovery. This highlights the need for policy-level interventions to ensure equitable access to stroke rehabilitation services across different socio-economic strata (21).

The emphasis on mobility in this study aligns with global research, which suggests that the restoration of physical function is pivotal to improving quality of life (22). Rehabilitation programs that incorporate physical therapy to improve mobility, alongside occupational therapy to assist with daily activities, are crucial. The literature also suggests that innovative approaches such as virtual reality and robotics in physical rehabilitation may offer additional benefits (23).

Educating patients prior to data collection is essential for ensuring they fill out questionnaires effectively. Expanding the study to cover a wider area and include a larger sample size would enhance the reliability and applicability of the findings. Additionally, there is a pressing need for awareness programs in less developed areas, as many patients lacked knowledge about physical therapy. This gap highlights the importance of such initiatives. Moreover, conducting more extensive research into rehabilitation plans is recommended to improve patient outcomes.

The study faced several limitations, notably its small sample size, which restricted the precision of the findings. A broader study with a more extensive population would likely yield more definitive results. The limited duration of the study also constrained its scope and depth. An observational study, based primarily on questionnaire surveys, limited the breadth of the findings. In contrast, an experimental or cohort study might have provided more accurate and precise results. The unclear responses from patients, likely due to a lack of interest and awareness, further compounded these limitations. Additionally, conducting the study during the Covid-19 pandemic presented unique challenges that impacted participant engagement and overall study logistics.

## CONCLUSION

In the study, it was observed that stroke significantly impairs various domains of quality of life. The majority of the patients experienced a marked decline in their quality of life, with only a few reporting a good quality of life. Overall, the impact of stroke was profound, leading to a considerable deterioration in life quality and increased dependency in daily activities.

This study's findings underscore the urgent need for comprehensive post-stroke care and rehabilitation programs. The observed decline in the quality of life among stroke patients highlights the importance of integrating multi-disciplinary approaches in their treatment plans. These should include not only medical and physical therapy but also psychological support and social reintegration strategies. Enhancing awareness and accessibility to such services, particularly in under-served communities, is crucial. This study also suggests the need for further research to develop and refine interventions aimed at improving the quality of life for stroke survivors.



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