Journal of Chemical Health Risks

www.jchr.org

JCHR (2026) 16(2), 2144-2150 | ISSN:2251-6727

Quality of Life among Patients with Parkinson's Disease.

[1] **Miss. Aram Mulla,** [1] **Dr. Yasmin D. Nadaf,** [2]

[1]Post Graduate Student, [1] Associate Professor and Consultant Psychologist, Head counselling cell and Department of psychology, KAHER, Belagavi.

[2] Dr. Saroja A. O. Professor and HOD Neurology KLE's Prabhakar Kore Hospital & Medical Research Centre, Belagavi.

[1]J.N. Medical College KLE Academy of Higher Education and Research, Belagavi, India

(Received: 16 January 2026 Revised: 25 February 2026 Accepted: 17 March 2026)

KEYWORDS

Parkinson's disease, Quality of life, Neurodegenerative disorder, Demographic factor, General well-being (GWB).

ABSTRACT:

Introduction: Parkinson's Disease (PD) is a progressive neurological disorder that affects both physical functioning and mental health. Patients commonly experience tremors, rigidity, slow movement and difficulties in daily activities; along with these motor symptoms, many individuals develop depression, anxiety, sleep problems and memory issues. These psychological challenges often create fear of progression, dependence and loss of control. Continuous symptom burden and lifestyle adjustments increase stress and emotional strain. Such difficulties can reduce coping ability, affect treatment adherence and lower Quality of Life.

Objectives:

1. To assess the level of quality of life among patients with Parkinson's disease.
2. To find out the association of demographic characteristics with quality of life among patients with Parkinson's disease.

Methods: A Cross- sectional study design was used with a convenience sampling to assess quality of life among 97 reported patients of Parkinson's disease from Belagavi city by using the Quality of Life Scale (QOLS-SSNN).

Results: Most of the Parkinson's patients in the study showed 65.98% low Quality of Life. A statistically significant association was identified between family type and quality of life, 75% of joint family reported low compared to 51.35% in nuclear family.

Conclusions: The level of quality of life is low in patients with Parkinson's disease and there is a significant association of family with Quality of life.

1. Introduction

Health is a fundamental part of human life because it affects how well one lives, functions and feels every day. It includes not only physical symptoms but also emotional, mental and social well-being. When any part of health is disturbed, people face problems that affect their daily activities and overall quality of life. Among the various health issues people experience, neurological problems are especially challenging because they affect the brain and nervous system. [1]

One such major neurological problem is Parkinson's disease. Parkinson's disease is a progressive disorder of the nervous system that affects movement, balance and coordination. As it develops, it causes symptoms such as tremors, stiffness, slow movements and difficulties in performing routine tasks, which can severely affect a person's quality of life.[1]

Quality of Life

Quality of Life (QoL) refers to how comfortably, independently and effectively a person is able to function in his/ her daily life, including physical, emotional, social and environmental aspects.[2]

In Parkinson’s disease (PD), QoL is often significantly reduced because individuals experience motor symptoms such as tremors, stiffness, slow movements and balance problems along with non-motor challenges like anxiety, depression, sleep disturbances and cognitive changes. [3]

These difficulties limit everyday activities, reduce independence and restrict social participation, which leads to a noticeable decline in overall QoL. As PD progresses, it increases physical limitations, fear of worsening symptoms, dependence on caregivers and emotional strain that further affects how patients manage daily life. [4]

Unhealthy living habits such as lack of exercise, poor sleep, stress and an unhealthy diet can make these problems even more severe by increasing fatigue, reducing mobility and worsening emotional distress. These negative consequences add to the challenges of PD and further lower the individual’s overall quality of life. [5]

Research also shows that poor social support, low physical activity, disturbed sleep and untreated psychological issues are linked with even poorer QoL, while counselling and lifestyle modifications can improve patients functioning and comfort. [6]

Considering these factors, the present study was undertaken to determine the quality of life and to find out the association of demographic variables with Quality of life among the patients with Parkinson’s disease.

2. Objectives

1. To assess the level of quality of life among patients with Parkinson’s disease.
2. To find out the association of demographic characteristics with quality of life among patients with Parkinson’s disease.

3. Methods

***Research design*:** Cross- sectional study.

Sampling technique: Convenience sampling.

Sample size: Sample of 97 reported patients diagnosed with Parkinson’s disease was selected from hospitals, registered neurology clinics and outpatient’s department (OPD) within Belagavi city using Alessandra Nicoletti formula for sample size estimation.

Measure used: Quality of life (QOLS-SSNN) by Sarika Sharma and Dr. Nakhat Nasreen.

Procedure: After seeking approval and ethical clearance from the Jawaharlal Nehru Medical College, Ethics Committee and concerned hospital authorities, participants were selected using convenience sampling and they were briefed about the study and informed consent was taken.

Questionnaires were given with clear instructions and doubts were clarified by the investigator.

Each participant was given around 40 minutes to complete the questionnaire. After completion, the filled questionnaire forms were collected, they were then scored and taken for statistical analysis.

Analysis of result: Percentage method, Chi- square test, Spearman rank correlation.

4. Results

Table 1. Showing the level of quality of life among patients with Parkinson’s disease.

Levels of QOL	Number	Percentage (%)
Extremely Low	7	7.22
Low	64	65.98
Below Average	16	16.49
Average	6	6.19

Above average	4	4.12
Total	97	100.00

Graph 01: Graphical presentation of quality of life among patients with Parkinson's disease.

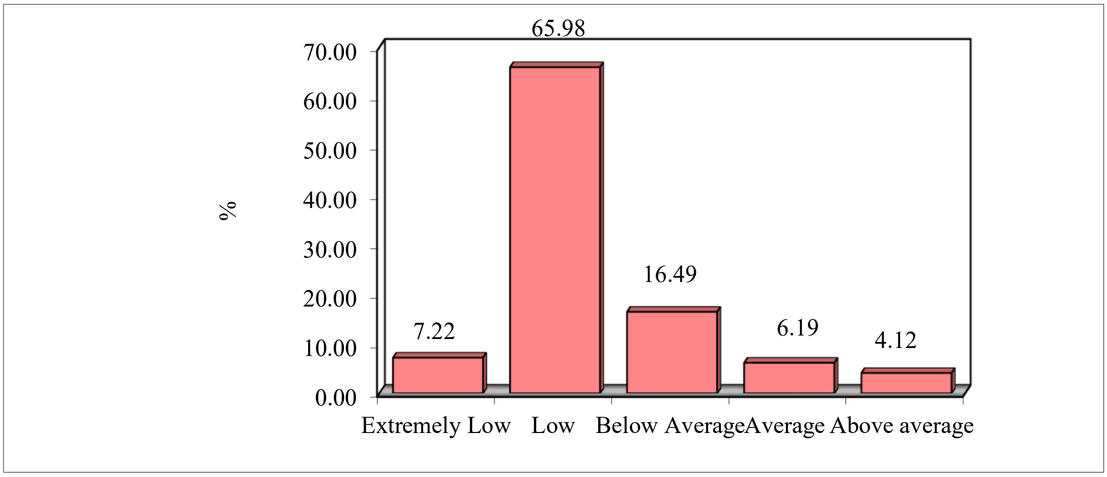

Table 2: Showing the correlation between QOL and GWB by spearman rank correlation.

Variable	**Correlation between scores of QOL with**			
	N	**Spearman R**	**t-value**	**p-value**
GWB scores	**97**	**0.5781**	**6.9057**	**0.0001***

*p<0.05

Graph 02: Scatter plot representing the correlation between QOL and GWB.

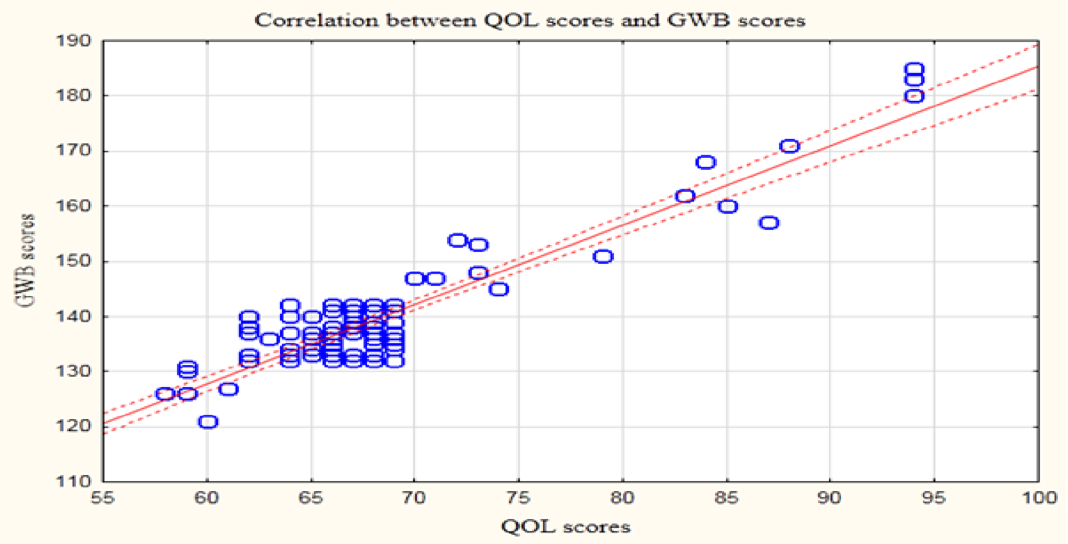

Table 3: Showing the association of demographic characteristics with quality of life.

Characteristics	Extremely Low	%	Low	%	Below Average	%	Average	%	Above average	%	Total	%	χ^2	p-value
Gender														
Male	3	5.36	37	66.07	10	17.86	3	5.36	3	5.36	56	57.73	1.4200	0.8410
Female	4	9.76	27	65.85	6	14.63	3	7.32	1	2.44	41	42.27		
Type of Family														
Joint	5	8.33	45	75.00	8	13.33	1	1.67	1	1.67	60	61.86	10.6610	0.0310*
Single	2	5.41	19	51.35	8	21.62	5	13.51	3	8.11	37	38.14		
Disease duration														
6-9yrs	0	0.00	43	70.49	10	16.39	5	8.20	3	4.92	61	62.89	15.0270	0.0590
10-12yrs	4	16.67	14	58.33	4	16.67	1	4.17	1	4.17	24	24.74		
>=13yrs	3	25.00	7	58.33	2	16.67	0	0.00	0	0.00	12	12.37		
Total	7	7.22	64	65.98	16	16.49	6	6.19	4	4.12	97	100.00		

*$p<0.05$

5. Discussion

Quality of Life (QOL) refers to an individual's overall satisfaction and functioning across physical, emotional and social domains. It reflects how well a person is able to perform daily tasks, maintain independence and cope with illness-related challenges. In chronic neurological disorders such as Parkinson's disease (PD), quality of life becomes an essential marker of disease impact because both motor and non-motor symptoms significantly affect every day functioning and overall well-being. **WHOQOL Group (1995)** [7]

QoL is a crucial aspect of daily functioning for such patients because the condition affects their physical abilities, independence and emotional comfort; motor symptoms such as tremors, stiffness and slowed movements make routine activities difficult, leading to reduced self-reliance and lower satisfaction with everyday life. These physical challenges often create emotional strain as patients may feel stressed, worried about their symptom progression or frustrated by their limitations. Such concerns can weaken motivation, reduce confidence and interfere with their ability to cope with the demands of the illness. Research shows that when physical symptoms worsen or remain unmanaged,

QoL decreases further, affecting social participation and overall functioning. However, factors such as timely treatment, supportive family relationships, rehabilitation therapies and positive lifestyle adjustments can help to improve QoL and promote better daily adjustment in individuals living with Parkinson's disease.[8]

In patients with Parkinson's disease, reduced QOL is strongly associated with worsening motor symptoms such as tremors, rigidity and slowness as well as non-motor symptoms like sleep disturbances, fatigue and mood change; these patients with low QOL often experienced higher levels of disability, reduced independence and limitations in routine and social involvement. Research further highlighted that individuals with poorer QOL tend to report increased emotional distress, lower confidence in daily functioning and greater difficulty coping with disease progression. [9]

Results addressing objective 1 are presented in Table 1 and discussed as follow.

In reference with above table, among total respondents, 65.98% experienced Low QOL followed by 16.49% with Below Average quality of life, 7.22% with Extremely Low QOL and 6.19% with Average QOL; while only 4.12% had Above Average quality of life. These findings indicate that the majority of the patients experienced noticeably low quality of life.

These findings support the results of previous research, which revealed that many patients with Parkinson's disease experience lower quality of life, emphasizing that physical mobility, emotional well-being and social functioning are significantly impaired in PD patients, leading to reduced daily functioning and overall health-related quality of life. Quelhas et.al (2009) [10]

This can be due to a combination of physical, psychological and social challenges. Both motor symptoms and non-motor symptoms have an even stronger negative impact on emotional well-being and social functioning. Additionally, treatment related side effects and increased dependence on caregivers also contribute to lower life satisfaction and reduced participation vice versa in their daily roles.

Overall, these combined factors lead to a noticeable decline in quality of life among individuals with Parkinson's disease as supported and confirmed by previous research and existing literature.[1]

In addition, in study it also observed that majority of participants (76.29%) had low general well-being. Further for which correlation was computed, these results are described in table number 2 as follow.

The results revealed a highly significant correlation (p= 0.0001) between QoL and GWB with a t-value of 6.9057 and Spearman rank coefficient of 0.5781 indicating that an increase in QoL was associated with an increase in GWB and vice versa.

These findings correspond with the study conducted by **Schrag et al. (2006)** showing the quality of life and general well-being are low in patients with Parkinson's disease, notably when depressive symptoms are present. [12]

Results of the second objective examined the association of demographic factors with QoL are demonstrated in the table no. 4.

The findings presented in the above table demonstrated that low quality of life was observed across all demographic factors. Notably, low QoL was noticed more in reference to gender, where 66.07% males experienced slightly higher low quality of life than females (65.85%). Extremely low QOL was comparatively higher in females with 9.76% than males (5.36%). QOL at above average level was observed somewhat similarly in both genders, (5.36% of males and 2.44% of females). The calculated chi-square and p-value is (x^2=1.420, p= 0.841) revealed no statistically significant association between gender and QOL.

Among the family type, low quality of life was observed in both joint and single types of families, but more in joint families than in single families as 75% of participants from joint family demonstrated this, also at extremely low-level joint families (8.33%) scored higher than single families. Above average QoL was relatively higher among single families (8.11%) than joint families. The calculated chi-square of 10.6610 and p-value (0.0310) indicated that a statistically significant association was identified between family type and QoL.

In case of duration of disease (DoD), low quality of life was predominantly observed in 70.49% of patients diagnosed with PD since 6–9 years followed by 58.33%

in 10–12 years and 58.33% in ≥13 years DoD. Extremely low QOL was noticed in ≥13years group (25%) followed by 16.67% in the 10–12 years of DoD; 4.92% participants with DoD OF 6-9 years and 4.70% with DoD of 10-12 year demonstrated above average QOL. The calculated chi-square and p-value (x^2 =15.0270; p=0.0590) indicated no statistically significant association between duration of disease and QOL.

The evaluation of overall findings of the study demonstrates that patients with PD experienced low quality of life across all demographic factors. Calculated p value indicates only one demographic factor that is type of family was significantly associated with QOL in PD patients. This indicates that quality of life among patients with Parkinson's disease varies depending on social support systems and family structure.

This confirm the findings of previous research that the quality of life in Parkinson's disease was significantly influenced by demographic and clinical factors with family, age, gender and duration of illness. **Opara et al. (2012)** [13]

CONCLUSIONS:

The following conclusions are made based on the study findings.

1. Quality of life is low in patients with PD.
2. There is a significant association of family type with quality of life.

LIMITATION OF THE STUDY:

1. Study was undertaken only in Belagavi city with a small sample size that restrict the generalization.
2. Study included only male and female participants and did not include transgender.

SUGGESTIONS:

1. Future studies must include a larger number of PD patients from different regions and healthcare settings to enhance the generalizability of the research.
2. Conducting a longitudinal study would help track changes in quality of life over time and also provide insights into disease progression and long-term outcomes.
3. Future research must also focus on interventions such as counseling, stress management and holistic approach to improvise QoL in PD patients.

Reference

1.World Health Organization. (1948). Preamble to the Constitution of the World Health Organization. https://www.who.int/data/gho/data/major-themes/health-and-well-being/GHO/health-and-well-being

2.Karlsen, K. H., Larsen, J. P., Tandberg, E., & Maeland, J. G. (1998). Quality of life measurements in patients with Parkinson's disease: A community-based study. European Journal of Neurology, 5(5), 443–450.https://doi.org/10.1046/j.1468-1331.1998.550443.x

3.Karlsen, K. H., Larsen, J. P., Tandberg, E., & Maeland, J. G. (1999). Influence of clinical and demographic variables on quality of life in patients with Parkinson's disease. Journal of Neurology, Neurosurgery & Psychiatry, 66(4), 431–435.https://doi.org/10.1136/jnnp.66.4.431

4.Opara, J. A., Brola, W., Leonardi, M., & Błaszczyk, B. (2012). Quality of life in Parkinson's disease. Journal of Medicine and Life, 5(4), 375–381.*https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3539848/

5.Shafiq, M. A., Singh, J., Khan, Z. A., Neary, J. P., & Bardutz, H. A. (2024). Effect of exercise on sleep quality in Parkinson's disease: A mini review. BMC Neurology, 24(49). https://doi.org/10.1186/s12883-024-03548-9

6.Visser, M., van Rooden, S. M., Verbaan, D., Marinus, J., Stiggelbout, A. M., & van Hilten, J. J. (2008). A comprehensive model of health-related quality of life in Parkinson's disease. Journal of Neurology, 255, 1580–1587.https://doi.org/10.1007/s00415-008-0994-4

7.Rahman, S., Griffin, H. J., Quinn, N. P., & Jahanshahi, M. (2008). Quality of life in Parkinson's disease: The relative importance of the symptoms. Movement Disorders, 23(10), 1428–1434.https://doi.org/10.1002/mds.21667

8.Quittenbaum, B. H., & Grahn, B. (2004). Quality of life and pain in Parkinson’s disease: A controlled cross-sectional study. Parkinsonism & Related Disorders, 10(3), 129–136.https://doi.org/10.1016/j.parkreldis.2003.12.001

9.The Japanese Quality-of-Life Survey of Parkinson Disease (JAQPAD) study. Journal of the Neurological Sciences, 419, Article 117172. https://doi.org/10.1016/j.jns.2020.117172Zhao, N., Yu, Y., Li, Y., & others. (2021).

10.Quelhas, R., & Costa, M. (2009). Anxiety, depression, and quality of life in Parkinson’s disease. Journal of Neuropsychiatry and Clinical Neurosciences, 21(4), 413–419.

https://doi.org/10.1176/jnp.2009.21.4.413

11.Quality of life in Parkinson’s disease: A systematic review and meta-analysis. CNS Neuroscience & Therapeutics, 27(6), 592-602. https://doi.org/10.1111/cns.13549 (Full text: https://pmc.ncbi.nlm.nih.gov/articles/PMC7871788/)

12.Schrag, A., Hovris, A., Morley, D., Quinn, N., & Jahanshahi, M. (2006). Health-related quality of life in Parkinson’s disease. Journal of the Neurological Sciences, 248(1–2), 151–157. https://albertoalbanese.it/wp-content/uploads/2022/06/Schrag-2006-Health-related-quality-of-life-in.pdf

13.Opara, J. A., Brola, W., Leonardi, M., & Błaszczyk, B. (2012). Quality of life in Parkinson’s disease. Journal of Medicine and Life, 5(4), 375–381.https://pmc.ncbi.nlm.nih.gov/articles/PMC3539848/