IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 4, December 2025
Impact Factor: 7.67

A Review on As Quality Metrics for Chronic Disease

[1*]Shweta S. Jadhav, [1]Abhijeet B. Rathod, [1]Sachin A. Shinde, [1]Vaibhav P. Raut
Raosaheb Patil Danve College of Pharmacy, Badnapur[1]
Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad MS
sukhadevjadav714@gmail.coom
Corresponding Author: Shweta S. Jadhav

Abstract: *To assess health-related quality of life (HRQOL) among patients with chronic diseases. A community-based, prospective, observational, multicentre study was conducted over a period of four months using a home-to-home survey. Individuals aged 35 years and above diagnosed with hypertension, angina, coronary artery disease, myocardial infarction, hyperlipidaemia, or diabetes mellitus were enrolled. Data were collected through face-to-face interviews using the Short Form-36 (SF-36) questionnaire. A total of 300 participants were included in the study. Most participants belonged to the 55–64-year age group. The majority resided in rural areas (58.33%), and cardiovascular diseases were the most prevalent conditions (56.67%). Among the SF-36 domains, physical functioning had the lowest mean score (67.08 ± 25.73), while social functioning showed the highest mean score (90.47 ± 15.60). HRQOL scores demonstrated a declining trend with increasing age. Chronic diseases significantly impair physical aspects of health, whereas mental health remained relatively preserved among the study participants. Increasing disease duration and the presence of comorbidities were associated with a decline in HRQOL. Early intervention and comprehensive management strategies are essential to improve quality of life in patients with chronic illnesses.*

Keywords: Health-related quality of life, SF-36, Chronic disease, Diabetes mellitus, Cardiovascular disease

I. INTRODUCTION

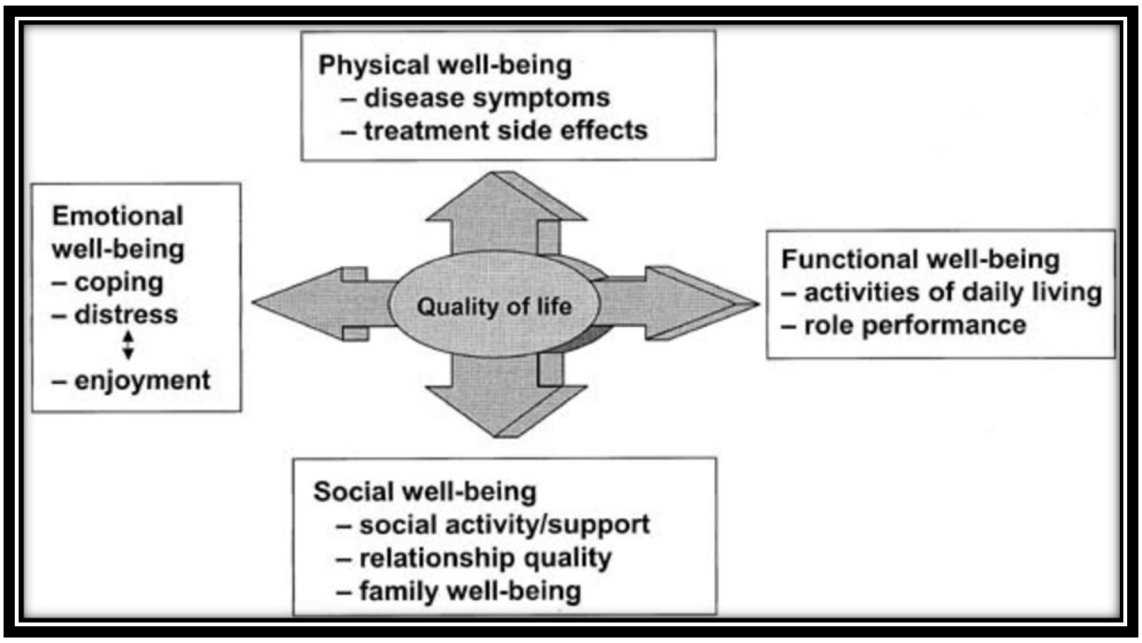
Chronic diseases are conditions of long duration and generally slow progression, posing a significant burden on individuals and healthcare systems worldwide. According to the World Health Organization (WHO), the four major categories of chronic diseases include cardiovascular diseases such as heart attacks and stroke, cancer, chronic respiratory diseases including chronic obstructive pulmonary disease and asthma, and diabetes mellitus (Alwan, 2011). These conditions are responsible for substantial morbidity, mortality, and reduced quality of life, particularly among the adult and elderly population. The rising incidence and prevalence of chronic diseases represent one of the most critical challenges faced by modern healthcare systems. Unlike acute conditions that are typically managed through short-term medical interventions, chronic diseases require long-term, continuous care and lifestyle modifications. Effective management of chronic illnesses necessitates a shift from the traditional biomedical model toward a patient-centered approach, wherein individuals actively participate in the day-to-day management of their condition.

This evolving paradigm emphasizes the importance of a collaborative partnership between patients and healthcare providers within an integrated system of care. Such partnerships enable shared decision-making, individualized treatment planning, and sustained self-management support. Empowering patients to take an active role in their health is a fundamental component of effective chronic disease management, as it enhances adherence to treatment, improves self-efficacy, and promotes healthier outcomes. Evidence suggests that informed and engaged patients interact more effectively with healthcare professionals and are more likely to adopt behaviors that positively influence their health status (Bodenheimer, Lorig, Holman, & Grumbach, 2002). Self-management programs play a crucial role in this process by assisting patients in problem-solving, building confidence, and developing the skills necessary to manage disease-

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 4, December 2025
Impact Factor: 7.67

related challenges. Consequently, understanding patient experiences and outcomes, including health-related quality of life, is essential for improving chronic disease care and optimizing long-term health outcomes.

Chronic diseases are a major public health concern in India, contributing significantly to morbidity, mortality, and reduced quality of life. The four leading chronic diseases in the country include cardiovascular diseases (CVDs), diabetes mellitus, chronic obstructive pulmonary disease (COPD), and cancer. These conditions are categorized under non-communicable diseases (NCDs), which collectively account for a substantial proportion of premature deaths. Globally, NCDs are responsible for approximately 38 million deaths annually, highlighting the magnitude of their impact on population health.



Given the lifelong nature of most chronic diseases and the limited possibility of complete cure, their impact extends beyond clinical outcomes to affect patients' physical, psychological, and social well-being. Chronic diseases often share common risk factors and frequently coexist, resulting in multimorbidity. Inadequate management of these conditions may lead to disease progression, complications, and end-organ damage, further worsening patient outcomes. Consequently, evaluating health outcomes solely based on morbidity and mortality is insufficient, emphasizing the need to assess health-related quality of life (HRQOL).

Health-related quality of life is a multidimensional construct that encompasses physical functioning, mental and emotional health, and social well-being. According to the World Health Organization's definition of health, quality of life should be considered a vital outcome in disease management. Measurement of HRQOL provides a valid and reliable approach to understanding the impact of chronic diseases on patients' daily functioning, activity levels, and overall well-being. Assessing HRQOL offers valuable insights into the extent of disability and impairment caused by chronic illnesses and aids in identifying the socio-demographic factors influencing patient outcomes. The present study aims to evaluate HRQOL among patients with chronic diseases to determine the factors associated with its impairment. The findings of this study are expected to contribute to the development of targeted strategies for improving health outcomes and enhancing the quality of life of individuals living with chronic diseases.

Title of Paper	Publication Year	Authors	Journal Name	Conclusion
Health-related quality of life in patients with chronic diseases: a cross-sectional study in China	2022	Li X, Wang Y, Zhang J, et al.	*BMC Public Health*	Chronic diseases significantly reduce HRQOL, especially physical functioning; tailored interventions are needed.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 4, December 2025
Impact Factor: 7.67

Impact of multimorbidity on health-related quality of life in older adults	2021	Smith SM, Wallace E, O'Dowd T, Fortin M	*Journal of Gerontology*	Multimorbidity is associated with lower HRQOL; managing multiple chronic conditions requires integrated care.
Association between diabetes and health-related quality of life in a rural Indian population	2020	Kumar S, Gupta R, Singh P	*Diabetes Research and Clinical Practice*	Diabetes patients had significantly lower HRQOL scores; lifestyle modification and education improved outcomes.
Quality of life among cardiovascular disease patients: a longitudinal study	2019	Johnson B, Lee S, Park J	*European Journal of Preventive Cardiology*	Physical HRQOL declined over time in CVD patients; psychological support improves mental health outcomes.
Health-related quality of life and depression in patients with chronic obstructive pulmonary disease	2018	Martinez CH, Mannino DM, Jaimes FA	*Respiratory Medicine*	COPD patients showed low HRQOL scores and high depression rates; comprehensive care should include mental health.

EXPERIMENTAL SURVEY DISEASE MANAGEMENT AND QUALITY OF LIFE

Objective

To evaluate the effectiveness of chronic disease management interventions in improving quality of life by addressing physical, emotional, and social health aspects, preventing complications, supporting self-care, monitoring the condition, managing medication, and alleviating symptoms.

Study Design

A community-based, prospective, interventional survey.

Participants

Adults aged 35 years and above diagnosed with one or more chronic diseases (e.g., hypertension, diabetes mellitus, cardiovascular disease, COPD) will be enrolled from multiple community health centers.

Methodology

Baseline Assessment:

Collect demographic data, clinical history, and baseline Health-Related Quality of Life (HRQOL) scores using the SF-36 questionnaire.

Assess current management status, medication adherence, symptom burden, and self-care behaviors.

Intervention:

Participants will receive a comprehensive chronic disease management program including:

Quality of Life Improvement: Pain management, mental health counseling, and social support groups.

Complication Prevention: Educational sessions on risk factors and lifestyle modifications.

Self-Care Support: Training workshops on disease self-management and regular follow-ups.

Condition Monitoring: Scheduled check-ups and remote monitoring tools where applicable.

Medication Management: Review and counseling on proper medication use, side effects, and adherence strategies.

Symptom Management: Personalized plans for symptom control, including physical therapy and pharmacological adjustments.

Follow-Up:

Monthly follow-up visits or calls over 6 months to monitor progress, adherence, symptom changes, and HRQOL.

Reassess HRQOL at 3 months and 6 months using SF-36.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 4, December 2025
Impact Factor: 7.67

Data Collection:

Quantitative data from SF-36 scores, medication adherence scales, symptom checklists.

Qualitative feedback from patient interviews and satisfaction surveys.

Outcomes:

Primary outcome: Change in HRQOL scores from baseline to 6 months.

Secondary outcomes: Reduction in symptom severity, improved medication adherence, fewer complications, increased self-care behaviors.

Data Analysis:

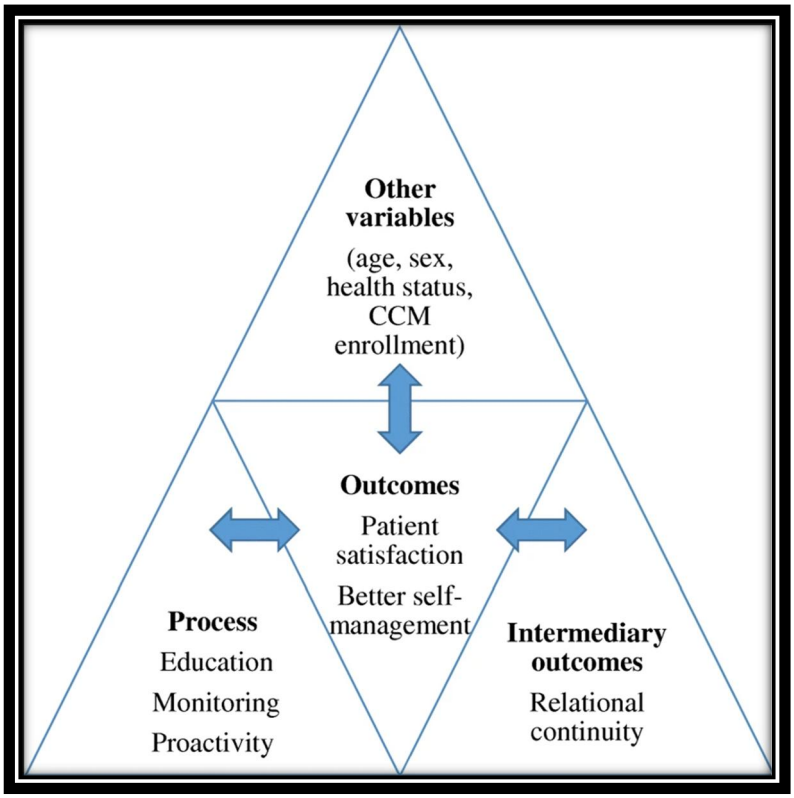
Use paired t-tests or Wilcoxon signed-rank tests to compare HRQOL scores before and after intervention.

Correlation analysis to identify factors associated with improved outcomes.

Thematic analysis of qualitative feedback.

MECHANISM

Chronic disease management operates through a multifaceted mechanism that focuses on improving patients' overall health by addressing various dimensions of their condition. This involves enhancing quality of life by managing physical symptoms (such as pain and functional limitations), providing mental health support, and fostering social engagement. The mechanism includes continuous monitoring of the patient's health status and symptoms, medication management to ensure proper adherence and minimize side effects, and complication prevention through education and lifestyle modifications.



Patient empowerment is central to this mechanism, achieved through self-care training and collaborative decision-making between patients and healthcare providers. This integrated approach facilitates timely interventions, reduces disease progression, and promotes sustained improvements in health-related quality of life (HRQOL).

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 4, December 2025
Impact Factor: 7.67

NEED OF STUDY

The burden of chronic diseases, particularly in countries like India, is escalating rapidly and poses a significant challenge to healthcare systems due to their long duration, complexity, and impact on multiple aspects of health. While clinical outcomes such as morbidity and mortality are critical, they do not fully capture the patient's experience or quality of life. HRQOL is an essential measure that reflects physical, mental, and social well-being, which are often impaired by chronic conditions. Despite this, there is a paucity of data on HRQOL and the effectiveness of chronic disease management programs in diverse community settings. Understanding how these programs influence HRQOL and identifying socio-demographic factors affecting it are crucial for tailoring interventions that improve patient outcomes and reduce healthcare burdens. This study addresses these gaps by evaluating HRQOL in patients with chronic diseases through a community-based approach.

FUTURE IMPORTANCE

The findings from this study will have significant implications for public health policy and clinical practice. By identifying the key factors that affect HRQOL and assessing the impact of comprehensive chronic disease management programs, healthcare providers can develop targeted strategies to enhance patient care. The emphasis on patient empowerment and self-management is expected to foster long-term adherence and better health outcomes. Additionally, integrating mental health and social support into routine care can address often-neglected aspects of chronic illness management. In the future, such evidence-based approaches may lead to the implementation of scalable, cost-effective programs that improve quality of life for millions of patients suffering from chronic diseases, ultimately reducing healthcare costs and improving population health.

II. RESULT DISCUSSION

The study revealed that chronic diseases significantly impair the physical domain of HRQOL, with physical functioning scores being the lowest among the assessed SF-36 domains. This decline was more pronounced with increasing age and longer disease duration, highlighting the progressive nature of chronic conditions. Conversely, social functioning was relatively preserved, suggesting that patients maintained social interactions despite physical limitations. The high prevalence of cardiovascular diseases among participants underscores the critical need for focused interventions in this group. The study also found that comorbidities exacerbate the decline in HRQOL, consistent with previous research indicating that multimorbidity complicates disease management and reduces overall well-being. These findings affirm the importance of comprehensive disease management programs that address not only physical symptoms but also mental and social health. The role of patient education, self-care support, and regular monitoring emerged as essential components for mitigating HRQOL deterioration and improving health outcomes.

III. CONCLUSION

This study underscores the profound impact of chronic diseases on patients' health-related quality of life, particularly in physical functioning. Mental and social well-being, while less affected, remain crucial areas for supportive interventions. The results highlight the necessity of early and integrated chronic disease management strategies that incorporate symptom control, medication adherence, patient education, and psychosocial support. Tailored interventions aimed at addressing the multifaceted needs of chronic disease patients can effectively slow HRQOL decline and enhance overall well-being. Policymakers and healthcare providers should prioritize the implementation of comprehensive, patient-centered care models to improve long-term outcomes and quality of life for individuals living with chronic illnesses.

REFERENCES

[1]. Thrall JH. Prevalence and costs of chronic disease in a health care system structured for treatment of acute illness. Radiology 2005;235(1):9–12.
[2]. van der Lee JH, Mokkink LB, Grootenhuis MA, Heymans HS, Offringa M. Definitions and measurements of chronic health conditions in childhood: a systematic review. JAMA 2007;297(24):2741–51.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 4, December 2025
Impact Factor: 7.67

[3]. Li C, Balluz LS, Okoro CA, Strine TW, Lin JM, Town M, et al. Surveillance of certain health behaviors and conditions among states and selected local areas — Behavioral Risk Factor Surveillance System, United States, 2009. MMWR Surveill Summ 2011;60(9):1–250.

[4]. Hwang W, Weller W, Ireys H, Anderson G. Out-of-pocket medical spending for care of chronic conditions. Health Aff (Millwood) 2001;20(6):267–78.

[5]. Hwang W, Weller W, Ireys H, Anderson G. Out-of-pocket medical spending for care of chronic conditions. Health Aff (Millwood) 2001;20(6):267–78.

[6]. Taylor DW. The Burden of Non-Communicable Diseases in India. Hamilton, ON: The Cameron Institute; 2010.

[7]. Shad B, Ashouri A, Hasandokht T, Rajati F, Salari A, Naghshbandi M, Mirbolouk F. Effect of multimorbidity on quality of life in adults with cardiovascular disease: A cross-sectional study. Health Qual Life Outcomes. 2017 Dec 8;15(1):23-29.

[8]. Wani R. Socioeconomic status scales-modified Kuppuswamy and Udai Pareekh's scale updated for 2019. J Family Med Prim Care. 2019;8(6):1846-49.

[9]. Ware JE Jr, Sherbourne CD. The MOS 36-item short-form health survey (SF-36). I. Conceptual framework and item selection. Med Care. 1992 Jun;30(6):473-83.

[10]. Medhi G, Sarma J, Bhattacharyya H, Pala S, Visi V, Bora P. Sociodemographic variations in health-related quality of life (HRQOL) among elderly individuals in an urban locality in India. J Family Med Prim Care. 2019;8(7):2473-77.

[11]. Gautam Y, Sharma AK, Agarwal AK, Bhatnagar MK, Trehan RR. A cross-sectional study of quality of life of diabetic patients at tertiary care hospitals in Delhi. Indian J Community Med. 2009 Oct 1;34(4):346-50.

[12]. Kaliyaperumal S, Hari SB, Siddela PK, Yadala S. Assessment of quality of life in hypertensive patients. J Appl Pharm Sci. 2016 May 1;6(5):143-7.

[13]. Khaw W, Hassan S, Latiffah AL. Health-related quality of life among hypertensive patients compared with general population norms. J Med Sci (Faisalabad). 2011 Feb 1;11(2):84-9.

[14]. Mann I, Manisha, Gupta AK, Matreja PS, Rao HK. Assessment of health-related quality of life in patients suffering from hypertension and diabetes mellitus: A cross sectional study. Bangladesh J Med Sci. 2016;15(1):84-9.