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**| RESEARCH ARTICLE**

# Quality of Life among Patients with Chronic Diseases: Integrative Review

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**| ABSTRACT**

Patients with chronic diseases have diminished quality of life; they need immediate intervention and various effective strategies to cope with their disease. The main purpose of this integrative review is to highlight the effect of the status of QoL on patients with chronic diseases in light of previous studies. Studies published in the years 2010 - 2022 were evaluated. International electronic databases such as Ovid MEDLINE, PuMed, Ovid OLDMEDLINE, Embase Classic + EMBASE (Ovid), The Web of Science (Thomson Reuters), The Cochrane Library (Wiley) and CINAHL Plus (EBSCO) were explored to find articles written in English-language using relevant keywords. All quantitative research studies which focused on the specific topic have been searched as well**.:** In this paper, 70 articles were searched. After checking for duplicates, 40 papers were left for evaluation of titles and abstracts. This left 40 articles for reading of full texts. Of these, 10 papers did not meet the aim. The remaining 30 articles were read thoroughly to appraise them according to the quality criteria. Twelve articles met the inclusion criteria. Hence, twelve studies were included in the present review**.** QoL is reduced in patients with chronic diseases. Saudi Arabia is still grappling with a good financing health structure as the majority of the participants lacked any form of medical insurance and were paying out-of-pocket at the point of service. Nurses and other healthcare providers should work to provide effective strategies for the purpose of increasing the level of QoL among patients with chronic diseases in Saudi Arabia and all over the world.

**| KEYWORDS**

Life among Patients; Chronic Diseases; Integrative Review; intervention

**| ARTICLE INFORMATION**

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## 1. Introduction

On the other hand, chronic illnesses such as cardiovascular disease, cancer, and diabetes, as well as chronic respiratory ailments such as asthma and chronic obstructive pulmonary disease, continue to be the main causes of mortality and disability across the globe (Kassa & Grace, 2019). Around 41 million people every year pass away as a result of chronic disease, which accounts for 71% of all fatalities worldwide; more than 85% of premature deaths occur in low- and middle-income countries (World Health Organization, 2018). These diseases are linked to a decline in patients' Quality of Life (QoL), in addition to major repercussions on their families and communities socioeconomic status. In addition, these illnesses are linked to a decline in the patients' quality of life, in addition to major repercussions for the socioeconomic system (Samiei Siboni et al., 2019).

The idea of health-related quality of life, abbreviated HRQoL, is derived from the definition of health offered by the World Health Organization (WHO), which states that an individual is considered to be healthy when they are in a state of complete physical, mental, and social welfare and do not suffer from any diseases. The World Health Organization (WHO) defines the quality of life as an individual's impressions of their place in life within the framework of the culture and value systems in which they live, as well as the individual's objectives, expectations, standards, and worries (Malhotra et al., 2021).

It is referred to as HRQOL when QoL is investigated in relation to certain health issues (Shimels et al., 2020). The HRQOL is an important indicator for illnesses that are related to health care. It measures patients' overall physical, mental, and emotional well-being at a specific time and can be used to evaluate the severity of a disease, treatment outcomes, patient satisfaction with care, quality of services, overall patient well-being, and the cost-utility of interventions targeting the disease. In addition, it can be used to measure patients' overall physical, mental, and emotional well-being at a specific time (Kaso et al., 2021; Ping et al., 2020).

Among the world's aging population, chronic illnesses such as cardiovascular diseases (CVD), hypertension, diabetes, cancer, chronic obstructive pulmonary disease (COPD), asthma, renal disease, and musculoskeletal ailments have been documented often (NCD Risk Factor Collaboration, 2017). The demographic makeup of Saudi Arabia has been slowly but steadily shifting, with an increasing number of older individuals making up a greater percentage of the population overall. In 2010, Saudi Arabia's elderly population made up just 3% of the total, but that percentage is expected to almost double by 2050, reaching over 20%. (Abusaaq, 2015). One recent research found that the prevalence of hypertension, diabetes, heart disease, asthma, ulcers, and cancer in Saudi Arabia were correspondingly 71.3%, 27.3%, 16.4%, 9.7%, 8.9%, and 2.0%. (Saquib et al., 2017).

Lower quality of life was found to be associated with having multiple or comorbid conditions, increasing age, being female, not being married or cohabiting, not having a higher education, having a lower income or lower socioeconomic status, living in a rural area, smoking, not currently drinking alcohol, and not adhering to treatment, among other factors, according to reviews and specific studies (Pengpid & Peltzer, 2018). According to the findings of another research, the vast majority of patients suffering from chronic conditions had a low quality of life as it related to their overall health (Ahmed et al., 2022). The primary objective of this integrative review is to bring to light, in light of prior research, the influence that the status of patients' quality of life has on patients who suffer from chronic illnesses.

## 2. Materials and Methods

### *2.1 Search strategy*

Different databases were used for the search strategy and systematic literature search. These databases include Saudi Digital Library, Ovid MEDLINE, PubMed, Ovid OLDMEDLINE, Embase Classic + EMBASE (Ovid), The Web of Science (Thomson Reuters), The Cochrane Library (Wiley), and Cinahl Plus (EBSCOhost).

The researchers were interested in searching in international peer-reviewed scientific journals, and the search was conducted in the English language. Additionally, a search on Google was done. Also, a hand search was conducted; reference lists of articles that have been included were done, as well as the relevant names of the authors, which were also searched to identify more relevant articles.

### *2.2 Inclusion and exclusion criteria*

The studies considered for inclusion in this review were restricted to those that met the primary objective of the current scoping review, which was to discover evidence of QoL among patients with chronic disease. Studies that have been published in English, published in peer-reviewed journals that matched the study topic, and published after the year 2016 have been included in the current paper. Quantitative studies were also suitable for inclusion, as were research projects carried out in clinical practice settings or other community and hospital settings. Key wards for the search included: quality of life, QoL, Health-related QoL, HRQoL, chronic diseases, non-communicable diseases, diabetes mellitus, hypertension, cancer, chronic kidney disease, and/or Saudi Arabia.

### *2.3 Exclusion criteria*

Studies that were done before 2010 and published in journals other than peer reviewed journals, as well as qualitative studies, were excluded.

### *2.4 Data extraction*

Data extraction was carried out by researchers independently from other previous literature and previous related published studies. The data extracted, in addition to other studies, provides important and effective results.

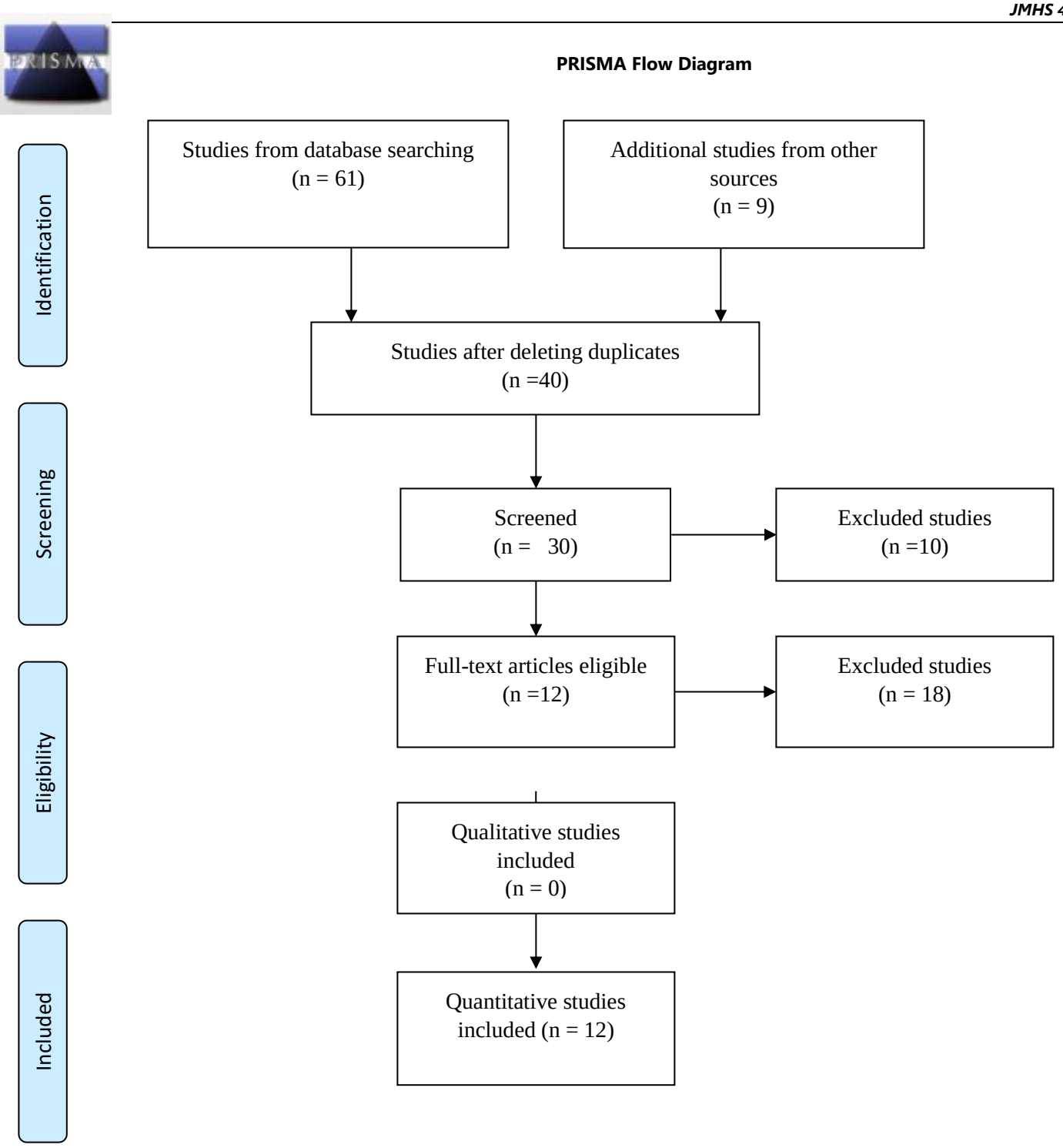


Figure 1: Flow Articles flow chart

## 3. Results

| Authors | Design | Sample | Instrument | Conclusion |
|---|---|---|---|---|
| Samiei Siboni et al. (2019) | Cross-sectional | Convenient sampling of 85 participants | WHOQOL-BREF questionnaire | Some patients, such as those with asthma and COPD, had a worse quality of life than other patients, and it is imperative that these patients be given priority when planning for the promotion of healthcare services. Because of the detrimental impact that a person's financial situation might have on their quality of life, the patients' quality of life enhancement programs should place a high priority on providing financial assistance services. |
| Pengpid & Peltzer (2018) | Cross-sectional | Convenient sampling of 4803 participants | WHOQol-8 | The QoL was shown to be low for major chronic disorders. This research offers information that may be used to enhance the treatment of chronic illnesses based on the QoL that was assessed for individuals with chronic diseases. |
| Ahmed et al. (2022) | Cross-sectional | Systematic random sampling of 400 participants | The 3-level version of EQ-5D (EQ-5D-3L) | During the COVID-19 pandemic, the vast majority of respondents had a low quality of life in regard to their general health. A primary concern of the healthcare system should be giving thought to the impact that outbreaks have on the consistent delivery of treatment to individual patients and concentrating on the circumstances that may have contributed to the epidemic. |
| Ijoma et al. (2019) | Cross-sectional | Convenient sampling of 613 participants | WHOQOL-BREF | The vast majority of patients in Enugu, Nigeria, who were coping with chronic medical conditions were economically disadvantaged, vulnerable, and without health insurance coverage. In general, those living with HIV enjoyed a higher quality of life than those who suffered from other health issues. People in Nigeria who are coping with chronic medical illnesses have a significant unmet demand, which necessitates the development of ways to address the problem. |
| Ayele et al. (2022) | Cross-sectional | Simple random sampling of 1815 participants | WHOQOL-BREF | Patients who were suffering from chronic diseases had a diminished quality of life. The environmental sphere of HRQoL was the one that suffered the greatest damage during the COVID-19 epidemic. There were a number of socio-demographic and clinical characteristics that had an effect, either directly or indirectly, on quality of life (QoL). These results showed how important it is to give extra attention to patients who live in remote areas, patients who have problems, patients who use a larger number of drugs, and patients who have comorbid conditions. |
| Gebremariam et al. (2022) | Cross-sectional | Systematic random sampling of 352 | 5-level EuroQoL-5 | Patients diagnosed with type 2 diabetes mellitus had an overall HRQoL that was poorer than that of the general population. This was due to a number of factors, including older age, longer duration of diabetes, usage of insulin, obesity, suboptimal glycemic control, and diabetes-related comorbidities. The utility index that we devised may be used in further economic assessments to provide direction for decision-making on alternative interventions and the distribution of resources. |

| | | | | |
|---|---|---|---|---|
| Gupta et al. (2021) | Cross-sectional | Purposive sampling of 300 participants | QoL Instrument for Indian Diabetes Patients | The QoL was rated as follows: 10% extremely poor, 13% poor, 11% average, 16% good, and 50% very excellent. The areas that were most negatively impacted were general health and treatment satisfaction. The overwhelming majority of people complained of feeling tired. Lower quality of life was predicted by factors including an age of more than 55 years, a rural upbringing, and a PHQ-9 score greater than 7. |
| Azar et al. (2020) | Cross-sectional | A simple random sampling of 137 participants | WHO-BREF (Short Form-26). | The quality of life dimensions of hypertensive patients shows a substantial link with demographic characteristics such as educational level, employment, and duration of hypertension. |
| Alshayban & Joseph (2020) | Cross-sectional | Purposive sampling of 378 patients with T2DM | EQ-5D questionnaire | Patients were found to have a QoL that was connected to their health to a modest degree. People who were male, had a high monthly income, did not have any issues connected to diabetes, and had a random blood glucose level of less than 200 mg/dl were more likely to have a higher index score when compared to the groups who were the opposite in those respects. |
| Alshammari et al. (2021) | Cross-sectional | A convenient sampling of 437 patients with hypertension | EQ-5D-3L | On the basis of this, it has been determined that HRQoL, in terms of physical functioning and overall health is excellent. A correlation between hypertension-related knowledge and HRQoL ratings, although a minor one but nonetheless significant. There are a number of characteristics, such as gender, education level, employment, and income level, that might have an effect on the HRQoL of the hypertensive population. |
| Jalal et al. (2022) | Cross-sectional | A simple random sampling of 180 patients with kidney diseases | Kidney Disease Quality of Life Short Form 36 (KDQOL-SF) | In the later phases of chronic renal disease, individuals saw a decline in their quality of life (CKD). Patients' gender, employment, level of smoking, and stage of chronic kidney disease were shown to have significant correlations with their QoL. |
| Ahmed et al. (2018) | Cross-sectional | A convenient sampling of 540 patients with cancer | Short-form (SF-36) | Patients suffering from cancer who engaged in regular physical activity tended to have improved physical function, emotional role function, energy, social function, and overall health (increase in SF-36 scores of 8.82, 9.75, 5.54, 6.66, and 4.97, respectively). Patients who were diagnosed with cancer during the first year of their lives had a higher risk of having poor mental health, worse social function, and worse overall health (decrease in SF-36 scores of 5.20, 7.34, and 6.12, respectively). Patients who had recently been diagnosed with cancer and patients who did not exercise tended to experience significantly poor quality of life across a number of domains; consequently, the efficacy of exercise as an intervention to improve quality of life in Saudi cancer patients needs to be evaluated. |

## 4. Discussion

This is most likely the first simultaneous integrated evaluation of the quality of life linked to health that has been conducted among patients in Saudi Arabia who have chronic conditions. The HRQoL is one of the major outcomes that is used to assess the impact that caring for chronic illnesses has on health, and it is essential since it represents both the patient's physical and psychological disease burden. In the current research, the EQ-5D-5L was employed to quantify the HRQoL in the Arab area for the very first time.

Previous research lends support to the usage of EQ-5D-5L rather than EQ-5D-3L. This is due to the fact that the scale with five levels has more discriminative power than the scale with three levels in patients with type 2 diabetes (Pan et al., 2015). The current review demonstrated an HRQoL that was moderate, with a median EQ-5D index score of moderate quality of life. Previous research that was carried out in the Riyadh area of Saudi Arabia found a conclusion that was comparable to this one, with a mean EQ-5D score of 0.70. (Al-Aboudi et al., 2016).

The vast majority of the research that has been conducted on HRQoL in Saudi Arabia has focused on certain disorders. Two more investigations, one in the Riyadh area and the other in the Makah region of Saudi Arabia, both confirmed our findings; however, the measuring scales they utilized were different (Elazhary et al., 2018). T2DM patients in Jordan were found to have a comparable mean EQ-5D score of 0.724, as reported in recent research from Jordan (Jarab et al., 2019). Studies have shown that a higher socioeconomic position is connected with a higher HRQoL in persons who have a chronic condition (Mielck et al., 2014).

A mean score of 78 or above on the WHOQOL BREF is seen as satisfactory and indicative of a decent quality of life, according to the findings of validated research of HRQoL conducted in a community in South West Nigeria (Akinyemi et al., 2012). According to the findings of this evaluation, the presence of comorbidities had a substantial impact on all aspects of the study except for the environment. Patients' quality of life suffers significantly as a result of the presence of chronic illnesses (McDaid et al., 2013). Nevertheless, one could see variations depending on the particular disease entities being discussed.

The findings of the current study are consistent with those of Xu et al., who found that the influence on patients' HRQoL may vary based on the many kinds of chronic illnesses that a patient has. Xu et al. found that this was the case.

In addition, a significant number of participants had carers, the majority of whom were members of their own families. These people had a quality of life that was much greater than average. The institution of the family provides a foundation for the kind of social support that, in turn, leads to increased security and better health in general (Rwegerera et al., 2018; Fatusin et al., 2016). Studies conducted in different regions of the globe provide weight to the notion that persons living with chronic diseases who have significant family support have an enhanced quality of life (Belanger et al., 2016; Kaur et al., 2015).

In terms of quality of life for individuals diagnosed with hypertension, the findings of the present review are in line with those of earlier studies carried out on a hypertensive population in Pakistan (Saleem et al., 2012). The results of previous research have been varied, ranging from a weak to a substantial association between the quality of life among people with hypertension and their adherence to medication. The disparities in the results are most likely attributable to the fact that HRQoL was measured using a variety of instruments, including the World Health Organization Quality of Life Instrument (WHOQOL-BREF), the EQ-5D-3L, the Short Form 36 (SF36), and the SF-12 (Ha et al., 2014).

Patients who have completed higher education have a better overall physical function because they have acquired information about the most effective health measures (Brennan & Turrell, 2012). In addition, the findings of this study disprove the hypothesis that disease-related awareness can bring about a decline in HRQoL, particularly in patients who are afflicted with chronic conditions such as hypertension and diabetes mellitus, because of the influence these conditions have on psychosocial domains (Korhonen et al., 2011). In a similar vein, the provision of educational programs in earlier research showed either a drop in HRQoL levels or no change in these scores. The knowledge of patients has been improved through the use of a variety of strategies, including the use of specialized clinics, scientific writing, and information technology (Alshammari et al., 2021).

## 5. Conclusion

Patients who suffer from chronic conditions, including diabetes, hypertension, and cancer, often have lower mean scores for HRQOL across the board. The existence of additional comorbidities has a negative impact on the mean scores of HRQOL, but the presence of caregivers and family support was shown to have a favourable correlation with HRQOL. The vast majority of participants in the study did not have any kind of medical insurance and paid for their care out of their own pockets at the time of treatment, indicating that Saudi Arabia is still having trouble establishing an effective system for funding health care.

Patients who are conscious of their situation and have chronic illnesses have been reported to have a decent HRQoL in terms of their physical functioning and overall health. There are a number of characteristics, such as gender, education level, employment, and income level, that might have an effect on the HRQoL of the hypertensive population. Patients suffering from chronic conditions should be the focus of health education efforts; doing so will assist in optimizing the quality of life (QoL) of these patients, which, in turn, will have an effect on their overall health status. In Saudi Arabia and elsewhere around the world, nurses and other medical professionals should collaborate to develop and implement efficient strategies with the overarching goal of elevating the quality of life (QoL) of patients afflicted with chronic conditions.

### *5.1 Strengths and Limitations*

Strengths of the present review include individuals with a verified diagnosis of critical chronic conditions such as hypertension and diabetes, and the studies employed multiple methods to evaluate QoL, such as the short form-36 and the EQ-5D-3L questionnaire, which is the European quality of life scale. In addition to this, we included research that used a large population of chronic patients and identified a variety of characteristics that individually influence HRQoL. This research was not without its share of restrictions. To begin, the bulk of the included studies were of the cross-sectional type, which has a restricted ability to provide information on causality. Furthermore, several of these researchers used a convenient sampling strategy.

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