Review

Impact of Medication Adherence and Quality of Life in Adults With a Single Chronic Condition or Multimorbidity: A Narrative Review

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Abstract

Introduction. Medication adherence plays a critical role in the clinical management of chronic conditions and may significantly influence patients' quality of life (QoL). Understanding this relationship is particularly important in populations with multimorbidity. Focusing on the problem of chronic conditions and multimorbidity in young adults is crucial because they represent the active part of society and chronicity is now public health concern due to the high number of incidence and mortality among this group population.

Methods. An extensive literature search was conducted in the PubMed/MEDLINE, Scopus, and Web of Science databases for the period 2014–2024. The search strategy used both Medical Subject Headings (MeSH) and keywords related to medication adherence, quality of life, chronic conditions, and adult populations. Original, full-text articles published in English between 2014 and 2024 were included if they involved adults aged 18–65 with one or more chronic conditions (e.g., diabetes, hypertension, COPD), living in community settings. Eligible studies employed RCTs, cohort, cross-sectional, case-control, qualitative, or mixed-methods designs and reported on both

medication adherence and quality of life. Studies were excluded if they focused on psychiatric, oncologic, surgical, transplant, or dialysis populations, hospital-based settings, or lacked relevant adherence and quality of life outcomes. This review is in PROSPERO with code CRD42025641905

Results. Eleven studies were included, cross-sectional, randomized control trial, mixed methods, semi directive interview. Most studies demonstrated a positive association between medication adherence and quality of life, with higher adherence linked to better physical, psychological, and social well-being. Pharmacist-led interventions and digital tools emerged as effective strategies for improving adherence. However, heterogeneity in measurement tools and study populations limited comparability.

Discussion. Medication adherence is a key modifiable factor influencing quality of life among individuals with chronic conditions and multimorbidity. Multidimensional adherence-enhancing strategies—including education, patient empowerment, and system-level changes—are essential. Future research should adopt robust methodologies and standardized outcome measures to better inform clinical practice and policy.

Keyword: Medication Adherence, Quality of Life, Chronic Disease, Multimorbidity.

Introduction

Chronic conditions, including diabetes mellitus, hypertension, chronic respiratory disorders, cardiovascular diseases, and arthritis, are persistent health issues that often require lifelong medical management and can significantly hinder an individual's ability to perform daily activities. These diseases are responsible for more than 70% of all deaths globally and contribute significantly to disability-adjusted life years (DALYs) lost, according to the World Health Organization.[1] Their growing prevalence is fueled by demographic and lifestyle transitions such as increased life expectancy, urbanization, physical inactivity, and unhealthy diets.[2]

A new challenging dimension of chronic disease management is multimorbidity, which is defined as the coexistence of two or more chronic conditions in a single individual. Multimorbidity increases the complexity of care due to polypharmacy, increased risk of drug interactions, conflicting clinical guidelines, and fragmentation in care delivery. While traditionally associated with older adults, recent data show that younger and middle-aged populations are increasingly affected. For example, studies in Canada and the United Kingdom reveal that nearly 30% of individuals over age 45 present with multimorbidity.[3] This phenomenon exacerbates functional dependency, increases healthcare utilization, and imposes substantial economic burdens on individuals and healthcare systems alike. In addition to these physical and systemic challenges, multimorbidity also brings significant psychosocial consequences that further compromise patients' well-being. According to patients perceptions, is often report diminished functional capacity, chronic pain, emotional deprivation, and social isolation. Depression and anxiety are especially prevalent among those managing multiple comorbidities.[4] The WHO defines quality of life (QoL) as *"an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns"*.[1] QoL is a multidimensional concept encompassing physical, psychological, and social domains of health, all of which are frequently compromised in chronically ill populations.

One of the most modifiable and impactful determinants of both clinical and quality-of-life outcomes in chronic illness is medication adherence.5 The WHO defines medication adherence as the degree to which a person's medication-taking behavior aligns with the agreed therapeutic regimen.[6] Nonadherence is a prevalent issue, with estimates suggesting that only about 50% of patients in developed countries adhere to their prescribed chronic therapies. Nonadherence contributes to poor disease control, increased hospital admissions, treatment failure, and reduced QoL.[7]

Medication adherence can be measured using a variety of methods, including self-report scales (e.g., MMAS-8, MARS), pharmacy refill data, electronic monitoring systems (e.g., MEMS), and biomarkers. Importantly, good adherence is associated with improved disease control, symptom management, and better psychosocial functioning, ultimately leading to enhanced QoL. A good example is, adherence to antihypertensive therapy has been linked to fewer cardiovascular events, while consistent use of inhalers in asthma reduces exacerbations and hospital visits.[8]

This review emphasizes adults aged 18–65, a demographic often neglected in adherence research but critically relevant due to competing personal, occupational, and caregiving responsibilities. Effective medication adherence in this age group has long-term implications for both individual health and the sustainability of healthcare systems.

Given these realities, the present review aims to synthesize the evidence on the relationship between medication adherence and QoL in adults with chronic illnesses and multimorbidity. Specifically, it seeks to examine how adherence influences QoL outcomes, identify common barriers and facilitators of adherence, and highlight key areas for future research and policy development.

Methods

This narrative review explores the association between medication adherence and quality of life (QoL) in adults with one chronic condition and those with multimorbidity. The methodology follows the PRISMA 2020 guidelines,[9] structured around the Population, Intervention, Comparison, Outcome, and Setting (PICOS) framework. Although PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) is traditionally designed to guide systematic reviews, the PRISMA 2020 guidelines offer a structured and transparent approach that can enhance the methodological rigor of narrative reviews as well. In this review, the use of PRISMA was not intended to imply a systematic review design but to improve the clarity, reproducibility, and comprehensiveness of the literature search and selection process. An extensive literature search was conducted in the PubMed/MEDLINE, Scopus, and Web of Science databases for the period 2014–2024. The search strategy used both Medical Subject Headings (MeSH) and keywords related to medication adherence, quality of life, chronic conditions, and adult populations. The final search was conducted on February 23, 2025.

Table 1. String of research.

Database	String
PubMed	("Medication Adherence"[MeSH Terms] AND "Quality of Life"[MeSH Terms] AND ("Chronic Disease"[MeSH Terms] OR "Multiple Chronic Conditions"[MeSH Terms] OR "Multimorbidity"[MeSH Terms]) AND "Adult"[MeSH Terms]) AND (2014:2025[pdat]) illness
Scopus	Medic* Adherence AND Quality of Life AND Chronic Diseas* OR Multiple Chronic Condition* OR Multimorb* AND Adult*
Web of Science	Medic* Adherence AND Quality of Life AND Chronic Diseas* OR Multiple Chronic Condition* OR Multimorb* AND Adult*

Eligibility criteria

Inclusion Criteria

This review includes original, full-text research articles only in the English language, employing randomized controlled trials, cohort studies, cross-sectional designs, case-control studies, qualitative methods, or mixed-methods approaches. Eligible studies must focus on adult populations aged 18 to 65 years who have been diagnosed with one or more chronic conditions

such as hypertension, diabetes, or chronic obstructive pulmonary disease (COPD). Participants must be community-dwelling individuals who are capable of performing self-care and receiving care within a primary healthcare setting. The studies must assess outcomes related to medication adherence and quality of life.

Exclusion Criteria

Studies will be excluded if they focus on populations with psychiatric illnesses, cancer, those undergoing surgical interventions, organ transplantation, or those receiving hemodialysis. Additionally, studies involving populations outside the specified age range (18–65 years) or those situated in hospital or tertiary care settings will not be considered. These populations are typically under close medical supervision, with medication adherence and health-related quality of life (QoL) often managed or influenced by healthcare providers such as nurses or caregivers. As such, including them may not accurately reflect self-managed adherence behaviors, which is the focus of this review. Non-original studies such as literature reviews, study protocols, and case reports will be excluded, as well as studies that are solely concerned with the validation of psychometric instruments without assessing adherence or QoL outcomes.

Study selection process

The selection process is illustrated in the PRISMA 2020 flow diagram.[9] Data collection and extraction of key findings were supported by the use of the Rayyan tool.

Data extraction

Data were independently extracted by Dr. B. Subashi and Dr. S. Likaj using a predefined data extraction form. The extracted information included author, year of publication, country, study design, study population, medication adherence measurement tools, quality of life (QoL) instruments, and main findings. The Rayyan® program was used to manage the screening process, including the organization, blinded review, and selection of studies based on title and abstract, as well as to track inclusion and exclusion decisions. Any discrepancies between the reviewers were resolved through discussion or, when necessary, in consultation with additional reviewers (E. Kokalla, E. Kicaj, and E. Mechili).

Data synthesis

Given the heterogeneity of study designs and outcome measures, a narrative synthesis was employed. Results were grouped by adherence measurement, QoL domains, and population characteristics. Patterns, similarities, and differences in findings across studies were analyzed.

Subgroup Analysis

Subgroup analysis was not applicable in this review due to the limited number of studies and variability in reporting.

Results

A total of 551 records were initially identified (Figure 1). After removing 49 duplicates, 502 records remained for title and abstract screening. Of these, 335 were excluded based on predefined inclusion and exclusion criteria, and 167 full-text articles were assessed for eligibility. Subsequently, 16 full-text articles were retrieved and assessed for eligibility, in this stage 5 articles were excluded, which led to a final total of 11 studies included in the synthesis. Details of the included studies—covering design, sample size, instruments used for medication adherence and quality of life (QoL), and key findings—are summarized in Table 2.

Measurement Tools Used in the Included Studies

The studies included in this review employed a variety of validated instruments to assess both medication adherence and health-related quality of life (HRQoL). These tools varied depending on the population, condition, and study design but generally included well-established scales such as the Morisky Medication Adherence Scale (MMAS) and the Medication Adherence Report Scale (MARS) for adherence assessment. For QoL measurement, the EQ-5D, EQ-5D-3L, WHOQOL-BREF, QOLIE-31P, and disease-specific tools such as the MSQoL and HRQoL in diabetes were frequently utilized (Table 3).

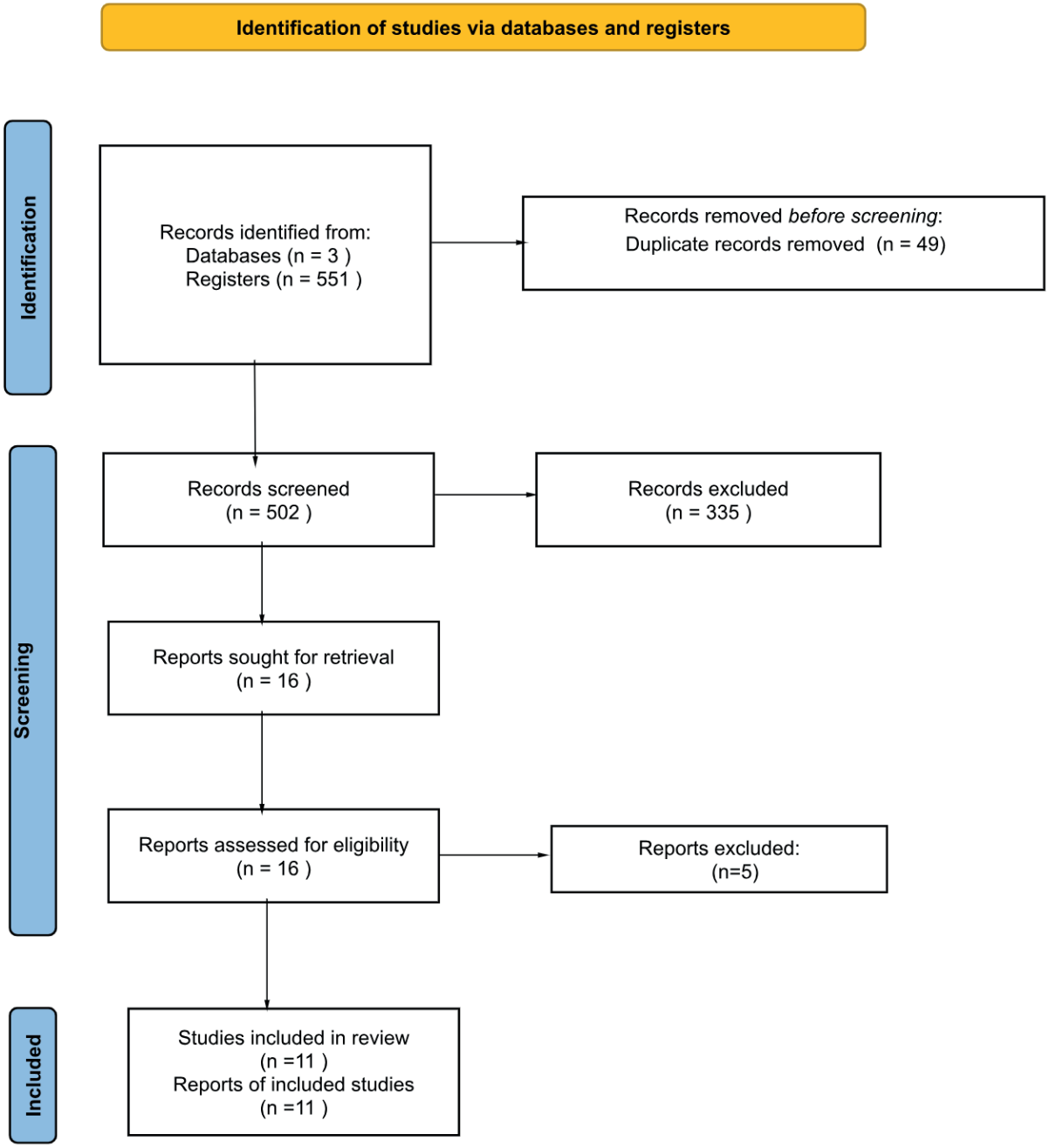

Figure 1. PRISMA flow diagram of studies screening and selection process.

The 11 included studies addressed a wide spectrum of chronic health conditions, such as chronic obstructive pulmonary disease (COPD), hypertension, diabetes mellitus, renal failure, epilepsy, heart failure, multiple sclerosis, and multimorbidity. The predominant study design was cross-sectional (n=6), followed by mixed methods (n=2), randomized controlled trial (n=1), semi- directive interview (n=1), and prospective study (n=1). Sample sizes ranged broadly from 17 to 856 participants.

Across this body of evidence, a consistent positive association was observed between medication adherence and health-related quality of life (HRQoL). In nearly all studies, higher adherence scores correlated significantly with better QoL outcomes across physical, psychological, and social domains. For instance, Babateen et al. (2023) reported that in epilepsy patients, better medication adherence was associated with better symptom control and improved functioning as well as quality of life.[10] Similarly, Ahmed et al. (2023) found that in diabetes populations, adherence was linked to improved metabolic parameters and higher EQ-5D scores.[11]

Table 2. Summary of included studies.

Study	Country	Design	Sample size (n)	Tool	Key findings
Babateen et al. 2023	Saudi Arabia	Cross-sectional-study	385	MARS , EQ-5D	The most common non-adherence pattern was taking medication only when needed.
Tussa et al. 2020	Ethiopia	Cross-sectional-study	774	MMAS, WHOQOL-BREF	Adults with diabetes had significantly poorer quality of life across all domains of the WHOQOL-BREF and overall QoL compared to adults without diabetes.
Sacre et al. 2024	Liban	Cross-sectional-study	865	LMAS, EQ-5D	Medication adherence and quality of life are influenced by complex factors.
Guan et al. 2019	China	Semi-directive interviews	60	Medication adherence, outcomes and expectations quality of life,and social relationships	Medication adherence was suboptimal, and concerns regarding adverse effects still exist.
Tong et al. 2015	Australia	Mixed methods evaluation study	17	MMAS-8, KDQOL-36	No significant improvement was observed in overall QoL scores and medication adherence.
Seston et al. 2020	United Kingdom	Mixed methods before and after intervention study	382	MARS , EQ-5D	Better care plan lead to better medication adherence and quality of life.
Price et al. 2015	United States of America	Prospective, Cross-sectional study	243	MMAS , EQ-5D-3L	Significant predictors of better asthma control, improved quality of sleep, better overall health status, and lower frequency of asthma exacerbations were associated with greater treatment adherence.
Kołtuniuk et al. 2022	Poland	Cross-sectional study	344	MusiQOL, MS-TAQ	Adherence positively correlated with QoL in MS.
Ahmed et al. 2023	Bangladesh	Cross-sectional study	480	MMAS, EQ-5D-5L	Adherence linked to improved QoL in diabetes.
Al-Saikhan et al. 2020	Saudi Arabia	Cross-sectional study	387	WHOQOL-BREF, MMAS	High adherence correlates with better QoL.
Leenen et al. 2018	Netherlands	Randomised controlled trial	102	MARS, QOLIE-31P	No significant association was established between medication adherence and QoL in the reported outcomes.

Legend. **MARS** = Medication Adherence Report Scale; **MMAS** = Morisky Medication Adherence Scale; **EQ-5D** = EuroQol - 5 Dimensions ; **WHOQOL-BREF** = World Health Organization Quality of Life – BREF; **LMAS** = Lebanese Medication Adherence Scale; **MusiQOL** = Multiple Sclerosis International Quality of Life questionnaire; **MS-TAQ** = Multiple Sclerosis Treatment Adherence Questionnaire; **QOLIE-31P** = Quality of Life in Epilepsy Inventory – 31 items, Patient-weighted version.

Among patients with neurological conditions, such as epilepsy Babateen et al. (2023),[10] multiple sclerosis Kołtuniuk et al. (2022).[12] Medication adherence was shown to be a key determinant of emotional stability, cognitive functioning, and social integration. In the study of Tussa et al. (2020), adults with diabetes had significantly poorer quality of life across all domains of the WHOQOL-BREF and overall QoL compared to adults without diabetes.[13] The study recommended integrating depression screening, medication adherence counseling, and diabetes self-care support into existing diabetes treatment.

In patients with pulmonary problems such as bronchial asthma, bronchiectasis or COPD, findings were slightly different for specific health conditions. For instance, in the study conducted by Guan et al. (2019), medication adherence was suboptimal.[14] It was also found that medication adherence was associated with patients beliefs, trust in health-care professionals, treatment response, and acceptance of the disease and treatment. On the other hand, a study conducted by Price et al. (2015) found that greater treatment

adherence significantly predicted better asthma control, improved sleep quality, enhanced overall health status, and a reduced frequency of asthma exacerbations.[15] In subjects with kidney conditions, both quality of life and medication adherence showed slight, non-significant improvements following the intervention. The absence of meaningful change in either outcome may reflect their interconnected nature—since improved adherence is often associated with better clinical outcomes and enhanced quality of life. When adherence remains suboptimal, however, patients may continue to experience symptoms or treatment burdens that negatively affect their overall well-being, thereby limiting improvements in quality of life Tong et al. (2015).[16] In subjects who are under anticoagulation therapy, medication adherence to anticoagulant therapy tend to be more significant and prominent in quality of life and functionality Al-Saikhan et al. (2020).[17]

In terms of multimorbidity, Seston et al. (2020) explored the relationship between quality of life, medication adherence, and multiple chronic conditions through a pharmacist-led care plan service.[18] While modest improvements were observed, the presence of multimorbidity appeared to limit the effectiveness of standalone interventions, highlighting the need for more individualized and sustained support to enhance adherence and, consequently, quality of life in these populations. Expanding beyond clinical outcomes, Sacre et al. (2024) emphasized that medication adherence and quality of life are influenced by a complex interplay of factors, including patient expectations and the quality of the pharmacist–patient relationship.[19] Meanwhile, Leenen et al. (2018) focused on improving disease-specific self-efficacy with medication adherence and quality of life as secondary outcomes.[20] Their findings revealed no significant association between adherence and quality of life, underscoring the complexity of these constructs and suggesting that improvements in one domain may not directly lead to gains in the other. Together, these studies highlight the multifaceted nature of adherence and quality of life, and the importance of addressing a broad range of factors when designing interventions for patients with chronic and multiple health conditions.

In summary, the cumulative evidence suggests that medication adherence is significantly and positively associated with quality of life in adults with chronic diseases. This relationship is evident across a range of clinical conditions, instruments, and geographical settings. The findings emphasize the importance of targeted adherence-promoting strategies, particularly in vulnerable populations burdened by polypharmacy, aging, and health system barriers.

Table 3. Instruments and domains assessed in studies on medication adherence and QoL.

Study	Adherence Tool	QoL Tool
Babateen et al. 2023	MARS	EQ-5D
Tussa et al. 2020	MMAS	WHOQOL-BREF
Sacre et al. 2024	LMAS	EQ-5D
Guan et al. 2019	Medication adherence outcomes	Expectation quality of life and social relationship
Tong et al. 2015	MARS	EQ-5D
Seston et al. 2020	MMAS	EQ-5D-3L
Price et al. 2015	MARS	QOLIE-31P
Kołtuniuk et al. 2022	MS-TAQ	MusiQOL
Ahmed et al. 2023	MMAS	WHOQOL
Al-Saikhan et al. 2020	MARS	EQ-5D
Leenen et al.2018	MMAS	EQ-5D-3L

Discussion

Medication adherence and quality of life are pivotal aspects of chronic disease management in an aging population where chronic diseases are prevalent. A well-functioning pharmacological therapy can improve physical functioning and prevent the aggravation of chronic diseases and the onset of side effects related to medications; in turn, this helps patients maintain well-being and quality of life (QoL). From the perspective of

Quality Adjusted Life Year (QALY), policy makers can better allocate healthcare resources with a greater awareness of how controlled chronic diseases that do not affect QoL can prolong longevity while having a marginal economic impact on health spending. In this research, the overall aim is to analyze the relationship between medication adherence and QoL in specific adult populations suffering from chronic conditions and/or multimorbidity. In particular, the relationship between adherence and QoL has been examined in the pertaining patient groups, deepening such associations over which pharmacotherapy, number of prescribed medications, multimorbidity, and polypharmacy characteristics have had a thorough focus on the analyses.

As health impairing factors are identified, healthcare policymakers can implement new policies to mitigate such factors' impact, via improving targeted health awareness programs. Medication adherence is defined as "the extent to which a person's behavior-taking medication, following a diet, and/or modifying lifestyle–corresponds with agreed recommendations from a healthcare provider".[1] A divergence is likely to arise between the intent to adhere and adherence behavior in chronic disease management due to the uncertainty and complexity in chronic disease management trajectory.

Non-adherence to medication threatens the ability to control chronic conditions and adds additional economic burden to the healthcare system by enlarging healthcare spending, which leads to more complications and increased hospitalization. A positive healthcare economic consequence of greater medication adherence can be achieved in controlled chronic diseases with at least two years of medication therapy, thereby enhancing the users' well-being and QoL at the same time. QALY is an index that equates the effectiveness of chronic disease management with its economic impacts.

This narrative review synthesizes findings from 11 studies examining the relationship between medication adherence and quality of life (QoL) in adults with chronic conditions and multimorbidity. Across various chronic illnesses—such as diabetes, hypertension, chronic respiratory disease, chronic kidney disease, and neurological disorders—a consistent positive association emerged: higher levels of medication adherence were linked to improved QoL outcomes, including symptom reduction, better physical and emotional functioning, and reduced health service use.

Key findings across studies

This narrative review revealed that adherence to medication and quality of life are affected by complex factors. Medication adherence can influence quality of life in individuals with a single chronic condition or multimorbidity. Moreover, improved adherence can reduce the risk of hospitalization in young adults with such conditions, as Ahmed et al. (2023) showed that better adherence led to fewer hospitalizations and improved disease control, ultimately enhancing patients' subjective well-being.[11] Building on this, the review revealed that adherence interventions, especially pharmacist-led models and simplified medication regimens, were associated with improved QoL metrics in diverse populations (Sacre et al., 2024),[19] highlighting the potential of targeted strategies to support patients across different demographic and clinical profiles.

Notably, instruments like MMAS-8, MARS, and EQ-5D or WHOQOL-BREF were frequently used, allowing some level of cross-study comparability. However, varying adherence thresholds, QoL tools, and population characteristics introduced heterogeneity that must be considered when interpreting pooled results.

Understanding Inconsistencies

While most studies confirmed a strong adherence–QoL link, some—such as Leenen et al. (2018)[20] and Tong et al. (2015)[16] — did not find statistically significant associations. These outliers suggest that the adherence–QoL relationship may be influenced by complex mediators and moderators. Factors such as side effects, treatment fatigue, disease burden, and sociodemographic characteristics may weaken or obscure the direct association between adherence and QoL. Notably, the study by Tong et al. (2015) included one participant undergoing hemodialysis, which raised a methodological consideration regarding our exclusion criteria.[16] Although our criteria specified the exclusion of hemodialysis populations, we chose to include this study because the overwhelming majority of participants had chronic kidney disease without dialysis. Excluding the entire study based on a

single exception would have limited the scope of the review and potentially excluded valuable insights into the adherence–QoL dynamic in non-dialysis CKD populations. The presence of one hemodialysis patient had minimal impact on the study's overall findings and did not compromise the relevance or validity of the data included in our synthesis.

Multimorbidity as threat to medication adherence

The studies reviewed underscore the complexity of improving medication adherence and quality of life among individuals with multimorbidity. Although pharmacist-led care plans have shown modest benefits, as demonstrated by Seston et al. (2018), their effectiveness is often constrained by the presence of multiple chronic conditions.[18] This highlights the limitation of one-size-fits-all interventions and suggests that more personalized, continuous support is crucial to sustain adherence and meaningful improvements in quality of life for these patients.

Furthermore, Sacre et al. (2024) point to the broader psychosocial dimensions influencing these outcomes—particularly patient expectations and the quality of the pharmacist–patient relationship—indicating that clinical strategies must also account for relational and perceptual factors.[19] The lack of a direct correlation between adherence and quality of life found by Leenen et al. (2019) reinforces the notion that these outcomes, while related, are not always interdependent.[20] This distinction implies that interventions targeting adherence may not automatically enhance quality of life, and vice versa.

Overall, these findings suggest that multimorbidity presents unique challenges requiring interventions that are both multifaceted and context-sensitive. Future efforts should consider integrating behavioral, relational, and clinical components to more effectively support patients with complex health profiles.

Condition-Specific Factors Influencing Adherence and Quality of Life

The findings from Tussa et al. (2020) highlight the significant negative impact of diabetes on quality of life, as adults with diabetes reported poorer outcomes across all domains of the WHOQOL-BREF compared to non-diabetic individuals.[13] This underscores the need to move beyond glycemic control alone and address psychosocial and behavioral dimensions of care. Their recommendation to incorporate depression screening, medication adherence counseling, and self-care support into routine diabetes management reflects a holistic approach that may better address the multidimensional burden of the disease.

In contrast, studies focusing on pulmonary conditions such as bronchial asthma, bronchiectasis, and COPD revealed somewhat different patterns. Guan et al. (2019) identified suboptimal medication adherence in these populations, with adherence closely tied to patients' beliefs about treatment, trust in healthcare professionals, perceived treatment response, and acceptance of their condition.[14] These findings suggest that effective adherence interventions must not only address clinical management but also actively engage with patients' cognitive and emotional perceptions of their illness and therapy.

Adding another dimension, Babateen et al. (2023) study revealed that a common non-adherence behavior was taking medication only when symptoms were present, pointing to a possible gap in patient understanding of chronic disease management.[10] This behavior reflects a symptom-driven approach rather than a preventive or maintenance-oriented mindset, emphasizing the need for stronger education and communication about the purpose and importance of regular medication use, even in the absence of acute symptoms.

Taken together, these studies reinforce the complexity of medication adherence and quality of life across different chronic conditions. They suggest that tailored, condition-specific strategies—encompassing psychological support, health education, and trust-building—are essential for improving long-term health outcomes.

The Positive Impact of Adherence on Quality of Life and Health Outcomes Across Conditions

The reviewed studies consistently demonstrate that higher medication adherence is associated with a range of positive health outcomes and improved quality of life across different chronic conditions. Price et al. (2015) found that in individuals with asthma, greater adherence

significantly predicted better disease control, enhanced sleep quality, improved overall health status, and fewer exacerbations.[15] Similarly, in patients undergoing anticoagulation therapy, Al-Saikhan et al. (2020) reported that adherence was strongly linked to better quality of life and higher levels of daily functioning, underscoring the direct clinical and lifestyle benefits of sustained treatment engagement.[17] Another strong element that forces the fact of the positive impact of adherence on quality of life is for the rare conditions such as multiple sclerosis. In this context, Kołtuniuk et al. (2022) highlighted that medication adherence plays a critical role in supporting emotional stability, cognitive functioning, and social integration, with a clear positive correlation to overall quality of life.[12] Taken together, these findings reinforce the essential role of adherence not only in managing disease symptoms but also in enhancing broader dimensions of patient well-being across diverse clinical contexts.

Short- and Long-Term Strategies

Simple, low-cost strategies like medication reminders and improved patient education can yield rapid benefits. However, addressing deeper barriers—like mistrust, fear of side effects, and social isolation—requires system-level reforms. These include redesigning health systems to be more patient-centric and flexible, minimizing unnecessary polypharmacy, and enhancing coordination across care providers.

Research Gaps and Future Directions

This review identified critical research gaps. Few studies used prospective or experimental designs to infer causality. The widespread reliance on self-reported adherence raises concerns about measurement accuracy due to recall and desirability biases. Additionally, limited adjustment for confounding variables (e.g., comorbidities, economic hardship, or cognitive impairments) threatens internal validity.

Future research should prioritize longitudinal, multi-center study designs to capture the long-term effects of medication adherence on quality of life across diverse populations. Incorporating objective adherence measures, such as Medication Event Monitoring Systems (MEMS) and pharmacy refill rates, will enhance the accuracy and reliability of adherence assessments. Additionally, standardizing outcome measurement tools—using validated instruments like the EQ-5D and WHOQOL-BREF—will facilitate comparability across studies and strengthen the evidence base. It is also important for future studies to analyze subgroups based on factors such as age, gender, socioeconomic status, and disease complexity, to better understand how these variables influence the relationship between adherence and quality of life and to tailor interventions accordingly.

Conclusion

This narrative review suggests that medication adherence is an important and potentially modifiable factor influencing quality of life (QoL) in adults with chronic diseases and multimorbidity. While many studies support a positive association between adherence and QoL, the findings are not entirely consistent across the literature, indicating that this relationship is likely influenced by a range of contextual and individual factors. Therefore, strategies to enhance adherence should be multifaceted and tailored, addressing psychological, social, structural, and clinical domains. Efforts such as patient empowerment, healthcare system adaptations, and further longitudinal research are essential to better understand and support improvements in both adherence and overall well-being.

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