

Primary Healthcare Services and Health-Related Quality of Life of Older Persons with Non-Communicable Diseases: A Narrative Literature Review

Atim Fiona^{1,2,*}, Frank Kiyinji¹, Faustino Orach-Meza¹, Rose Clarke Nanyonga²

¹Nkumba University, Entebbe Road, P.O Box 237, Entebbe, Uganda

²Clarke International University, Kawagga Close, Off Kalungi Road, Muyenya. Block 244|Plot 8244: Bukasa Kyadondo, Kampala-Uganda

Review Article

Open Access &

Peer-Reviewed Article

DOI: 10.14302/issn.2693-1176.ijgh-24-5233

Corresponding author:

Atim Fiona, Nkumba University, Entebbe Road, P.O Box 237, Entebbe, Uganda, Clarke International University, Kawagga Close, Off Kalungi Road, Muyenya. Block 244|Plot 8244: Bukasa Kyadondo, Kampala-Uganda.

Keywords:

Primary Healthcare Services, Health-related Quality of Life, Older Persons

Received: August 06, 2024

Accepted: September 09, 2024

Published: September 30, 2024

Citation:

Atim Fiona, Frank Kiyinji, Faustino Orach-Meza, Rose Clarke Nanyonga (2024) Primary Healthcare Services and Health-Related Quality of Life of Older Persons with Non-Communicable Diseases: A Narrative Literature Review. International Journal of Global Health - 2(2):27-35. <https://doi.org/10.14302/issn.2693-1176.ijgh-24-5233>

Abstract

In response to the rising burden of non-communicable disease (NCD), the World Health Organization (WHO) developed tools to enable early detection and management of NCDs in Primary Healthcare centers (PHC). Globally, the prevalence of NCDs remains alarmingly high with 41 million deaths annually. Of these, 17 million people die before the age of 70, and 86% of these premature deaths occur in low-and middle-income countries. This narrative review aimed to assess the effect of PHC services on health-related quality of life (HRQoL) of older persons with NCDs, to critically analyze the potential of the existing literature in informing improvements in PHC services. We searched various databases (PubMed, Springer, Scopus, and ScienceDirect) for relevant literature. Peer-reviewed articles on the influence of PHC services on HRQoL among older persons with NCDs written and published in English between January 2013 and May 2024 were considered. The review indicates that effective PHC services are linked to good HRQoL. However, PHC services are sub-optimal and poor in low- and middle-income countries, hence more health interventions are essential to improve PHC services to enhance HRQoL of older persons.

Introduction

Annually, NCDs cause 41 million deaths [1]. Despite efforts to alleviate NCDs, morbidity, and mortality data indicate a rising impact of NCDs in low-resource countries where 80% of deaths are due to cardiovascular diseases [1]. NCDs have long-term effects further exacerbated by environmental, physical, behavioral, and genetic factors [1]. In a low-income country like Uganda, the situation is particularly challenging. Overall, the prevalence of poor HRQoL in Central Uganda Luwero and Nakaseke Districts was estimated at 52% [2], a figure close to the national prevalence of 59.6% [3]. Poor HRQoL exacerbates unhealthy days, limits activities, and elevates health symptoms among older persons with NCDs in these districts. This high prevalence may be linked to the substantial burden of

NCDs among older persons in Central Uganda, reported at 28.5% [4, 5]. NCDs were included in PHC to foster mechanisms for better management and control of chronic diseases [4].

Health-related quality of life has been a crucial focus in public health over the last decade. HRQoL is a significant prognostic predictor used to measure and identify health problems related to physical and mental well-being dysfunctions. [6] Literature shows that older persons live longer due to increased life expectancy. However, they face enormous chronic conditions. The World Health Organization (WHO) defined HRQoL as an individual's perception of their position in life within the context of their culture, and value systems in which they live and to their goals, expectations, standards, and concerns. Additionally, HRQoL has been conceptualized as a global tool to assess the impact of health conditions [7] and is frequently used to measure the well-being of individuals especially older persons [8]. Literature indicates that HRQoL is a global phenomenon that warrants further exploration to facilitate the inauguration of mechanisms to improve older persons' well-being [9]. Assessing the HRQoL of older persons with NCDs is crucial as NCDs pose a global challenge, responsible for 63% of deaths worldwide [1]. Primary health care services (PHCs) play a pivotal role in the early diagnosis, prevention, and management of NCDs and the improvement of the HRQoL of older persons globally [10]. Ensuring responsive PHCs enhances accessibility, improves patient utilization and retention rates, and promotes equitable access to service delivery [11]. Despite multiple studies showing the influence of PHC services on HRQoL, studies among older persons are scarce. The current study conducted a narrative literature review to ascertain the effect of PHC services on HRQoL among older persons with NCDs, providing evidence-based information to inform policy review and implementation.

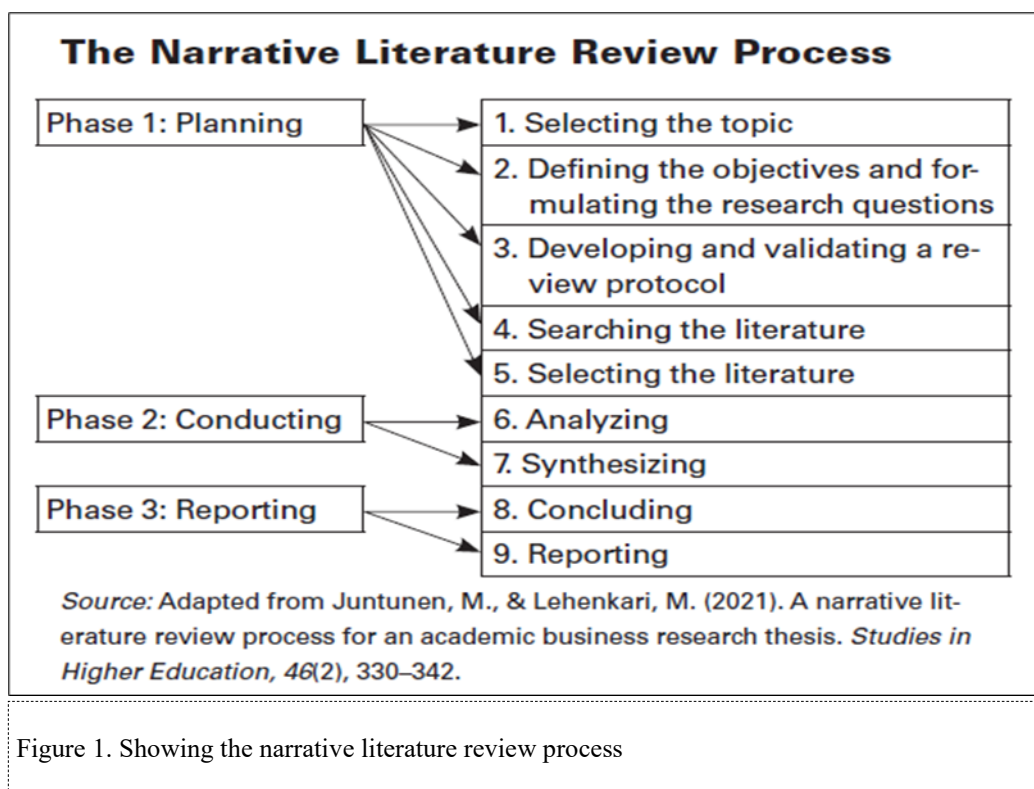
Methods and Materials

Search Protocol

The narrative literature review adhered to the Mari Juntunen and Mirjam Lehenkari 2021[12] narrative literature review process as shown in Figure 1. The literature search was performed on PubMed, Springer, Scopus, and ScienceDirect. The studies reviewed spanned from January 2013 to May 2024 and utilized a variety of research study designs ranging from in-depth studies, case studies, cross-sectional studies, surveys, evaluations, and RCT (interventional studies). Only literature addressing the influence of PHC services on HRQoL of older persons with NCDs or chronic diseases was included. The search strategy adhered to the Population Intervention Comparison and Outcome (PICO) framework for reviewing the literature. Key search terms included the population descriptors: "older," "elderly," "senior citizen," "aged people," "older persons," and "old individual." The effect of primary healthcare was searched using terms like "primary healthcare services," "primary healthcare," "primary health facilities," "primary health interventions," and "services." For health-related quality of life, terms such as "health status," "health profile," "HRQoL," "HRQL," and "QOL" were used. Two reviewers, as indicated in Figure 1, reviewed the selected articles in stages.

Screening process

In the first stage, reviewers independently screened the potential article titles to be included in the narrative review while adhering to the objective of the study which was to assess the effect of PHC services on HRQoL of older persons with NCDs. The reviewers screened a total of 50 articles. In the second stage, the reviewers used the Covidence tool to extract the data, analyze potential studies, and resolve disagreements. During the second phase, 43 studies that did not meet the inclusion criteria were eliminated leaving 7 articles that were included. The final data extracted included the study design of



articles, method, target population, the effect of PHC services/interventions/programs for older persons, the effect of PHC services on HRQoL, and the effect of PHC interventions on QoL.

Quality assurance of the narrative review

To ensure the quality of the narrative review, the critical appraisal flowchart by Tod, Booth, and Smith 2022 was adopted [13]. To do this, we identified the study type(s) of individual articles to ensure that all articles selected met our inclusion criteria and were published in credible journals. This was followed by identifying appropriate criteria, selecting an appropriate checklist, performing the appraisal, and summarizing; reporting; and using the results.

Results

Characteristics of Research Articles Assessed

The articles assessed cover global studies stretching from Asia, Europe, and Africa. A total of 50 studies were screened, 47 articles that did not meet the inclusion criteria were removed, and only 7 articles that met the inclusion criteria were considered as shown in Table 1. All articles included were in line with PHC services for older persons with NCDs or chronic diseases.

Effect of Primary Healthcare Services on health-related Quality of life of older persons

The narrative review found that effective PHC services influence better health outcomes. However, the study by Zaidun et al [2024] [14], which assessed the impact of PHC services intervention on the quality of life of elderly persons in March 2024, was vague as it only concentrated on PHC interventions, leaving out the component of PHC services. In another study [15], it was observed that an independent and positive association exists between the PHC score and the mental component of HRQoL, and an inverse association with the physical domain was observed. This study focused on the PHC score without considering the specific health conditions of the elderly, despite being conducted

Table 1. Showing studies included in the narrative literature review.

Author/s (year)	Study aim	Methods	Findings
Honorato et al., (2013).	Assessment of primary health care received by the elderly and health-related quality of life.	A Cross-sectional study	The study showed higher PHC attributes attainment in units with FHS, regardless of the health problem
Santos et al., (2019)	The study aimed to assess the quality of life of elderly individuals with hypertension and diabetes Mellitus.	A mixed methods study design	Those affected by both diseases presented the worst 'physical' domain mean values. Qualitative data indicate the 'social' and the 'psychological' domains as the most important ones.
Haque et al., (2020)	The study aimed to provide a narrative drawn from a literature review around the hierarchy and current state of PHC in controlling NCDs	A narrative review of the literature	PHC services approach is useful in improving health outcomes in both high and low-resource settings.
Xiong et al., (2022)	Review primary health care system response to non-communicable disease prevention and control: A scoping review of national policies in Mainland-China	A scoping review	The study found a lack of emphasis on multisectoral collaborations, underuse of non-health professionals, and a lack of PHC-related quality evaluations
Kabir et al (2022)	Synthesize evidence on the primary healthcare system's readiness for preventing and managing NCDs	A systematic review	The study found the supply components at the PHC level are inadequately ready to address the growing NCD burden which negatively impacts QoL
Zaitun et al., (2024)	The systematic review aimed to describe the global PHC programs for the elderly and their impact on the QOL of the elderly.	A systematic review	Intervention rates were moderate, emphasizing the importance of tailored, comprehensive programs in PHC settings to address the needs of older persons.
Doring et al., (2024)	The study aimed to determine the role of PHC factors in a particular group and to assess the proportion of fixed and potentially modifiable factors.	A cluster randomized control trial	Social engagement, body weight, instrumental activities of daily living, and self-efficacy beliefs appeared as lifestyle factors eligible to be addressed in an intervention program for improving QoL.

Source: Secondary data from published articles

among elderly persons with chronic diseases. The findings revealed an independent and positive association between the PHC score and the mental component of quality of life, while an inverse association was noted with the physical component [15].

A systematic review study by Santos et al (2013) on the impact of PHC interventions on older persons found the HRQoL of older persons accessing PHC services in low- and middle-income countries to be poor, and that a weak PHC system exposes older persons to poor health and increased mortality [15]. The same systematic review study by Santos et al (2013) found that the WHQoL and HRQoL tools were the most commonly used for measuring HRQoL. However, none of the studies reviewed utilized the CDC, HRQoL-14 tool to assess the HRQoL of older persons with NCDs, despite its prominence and effectiveness in measuring both physical and mental health outcomes in older populations.

Primary healthcare services access

Concerning PHC services access, studies by Aguiar & Da Silva (2022) and Effendy et al (2022) indicate that PHC services access plays a great role in enhancing improvements in health outcomes [16], [17]. Limited access to PHC services negatively impacts HRQoL [16], and Effendy et al.'s study shows that 61.3% of older individuals with NCDs have unmet palliative care needs, with over 60% of hospitalized patients requiring palliative care that is often overlooked by clinicians [17]. This neglect leads to delays in early treatment and management interventions. The same research highlights a lack of clinician awareness regarding the palliative care needs of patients living with NCDs [17]. Additionally, delayed identification of palliative care needs negatively impacts the HRQoL of the patients and leads to death. Relatedly, Haque et al.'s study indicates that there is an unmet need for palliative care services by patients with NCDs, mostly in LMICs, due to poor budget allocation for healthcare, inadequate training of health providers, and poor access to primary healthcare facilities [18]. WHO conducted a scoping review on rehabilitation and PHC using the PubMed database between 2008 and 2018, and reported that 64% of the studies mentioned rehabilitative care referral by primary healthcare workers as a challenge [19]. The Global NCD plan (2013-2020) recognized rehabilitation as a vital and key health strategy to address NCD risk factors as well as loss of function due to the health effects of NCDs [1]. About 2.5 million people globally have conditions that need rehabilitation care, and NCDs are one of the conditions that predispose people to rehabilitation [1]. The same report highlights that in 2020, about 50% of the disability-adjusted life years were due to NCDs, specifically in low-income and middle-income countries.

Discussion

The narrative review found effective PHC services to be linked to HRQoL. However, the HRQoL of older persons accessing PHC services in low- and middle-income countries was sub-optimal. Similar findings were observed [20, 21], where effective PHC services in both developed and developing countries were found to be associated with enhanced healthcare services and better health outcomes [22]. Inadequate access to healthcare services, although previously more common in high-middle-income countries, is now increasingly affecting LMICs [21]. The literature underscores the need for a collaborative approach in PHC services to enhance community access to appropriate healthcare. Along these lines, [23] posits that effective delivery of PHC services can lead to improvement in the HRQoL. However, the primary healthcare system is currently unprepared to manage the increasing burden of NCDs, as highlighted by other research findings [24]. Further, a closely related study [25] observed that an independent association between PHC score and the mental health component of HRQoL exists, and an inverse association with the physical component was observed. However, the study [26]

centered on comparing tools for measuring the physical and mental outcomes of the patients that influence their HRQoL.

An analysis of the effectiveness of the PHC system shows that a weak PHC system exposes older persons to poor health and increased mortality [14]. Conversely, other closely related studies found that effective PHC services resulted in desirable outcomes, with improvements across all domains of HRQoL [27, 28, 29]. Despite improvements in HRQoL in the previous studies, Woo's study revealed an interesting aspect: many older persons were not sure if they were taking their medications correctly [29], which raises patient safety issues that require urgent attention. A study done in India found that preparedness for comprehensive PHC care, including prevention, diagnostic interventions, treatment, and rehabilitative care for NCD patients, is sub-optimal due to critical gaps in the healthcare setting [30]. This finding aligns with Baum's research, which found that a comprehensive PHC approach encompassing a wide range of health services and activities—from preventive, curative, promotional, and rehabilitative care—positively influences community health outcomes [31].

Specifically, Baum reported that effective PHC services enhance the rehabilitation of patients who suffer complications from NCDs, hence promoting HRQoL [31]. Similarly, the study "Strengthening Primary Healthcare Services to Help Prevent and Control Long-term [Chronic] NCDs" confirms that a comprehensive primary healthcare strategy has been identified as an effective approach for reducing health inequities and improving community well-being [21]. It emphasizes that the prevention of NCDs is possible through a primary healthcare approach, but only with strong intersectoral collaboration. This approach also enhances community access to appropriate healthcare, promoting health equity and improving HRQoL [21].

The major challenge with PHC services is identifying individuals with palliative care needs and the actual provision of palliative care itself [19]. The WHO report reinforces this point, showing that 64% of the studies, including their scoping review, indicated challenges in rehabilitative care referrals by clinicians or primary healthcare workers [19]. Another study revealed a discrepancy in findings, showing that despite a lack of trained workforce and adequate funds, physicians in Myanmar still provide palliative care to patients despite these challenges [32]. Overall, the effectiveness of PHC services in countries like India and Sri Lanka can be attributed to better healthcare service provision and equitable access to healthcare compared to other developing countries where access to PHC services is suboptimal.

This study was a narrative literature review which has some limitations. Unlike systematic reviews, narrative reviews are more susceptible to reporting bias. However, the narrative review approach was chosen for its ability to provide comprehensive, evidence-based insights into PHC services and HRQoL, and has the potential to aid in the development of theoretical frameworks. To mitigate bias, a structured review process protocol was followed, and careful attention was given to the quality of the included articles.

Implications of the findings

The findings of this study will drive data-based decision-making, paving the way for policy review and implementation of more effective PHC services, ultimately improving the HRQoL of older adults with NCDs. Effective PHC can enhance chronic disease management, resulting in a better quality of life for older persons. Additionally, the study promotes equitable healthcare distribution by reducing disparities and increasing access for vulnerable populations like the elderly. Improved access to PHC services will also lower unnecessary hospitalizations and emergency visits. Finally, the study identifies gaps that can

inform future research and improve current practices

Conclusion

Conclusively, the literature reviewed indicates that PHC services are inadequate in low-middle-income countries, and most studies have primarily focused in general on older persons, often overlooking older persons with NCDs. There is a significant knowledge gap in the provision of PHC services, making it difficult to predict their impact on HRQoL. There is a need for health policy reforms at PHC levels if the 2020 global healthy aging goal is to be met. More studies are needed to bridge the literature gap and enable better predictions of the influence of PHC services on HRQoL. Also, a methodological gap exists, as most studies included in the narrative literature review employed a cross-sectional study design and secondary data analysis (scoping review & systematic reviews) with only one study employing an RCT design and a mixed methods approach. Lastly, the literature review shows that most of the studies do not identify the specific nature and components of PHC services that contribute to the HRQoL of older persons, highlighting a need for further research.

Members Contribution

All members actively contributed to the study. AF conceptualized the study and participated in writing, reviewing, methodology, literature search, and editing; FK participated in the review, writing, and methodology; FOM participated in editing, reviewing, and writing; and RCN participated in the editing, reviewing, and writing the manuscript.

Declaration of Conflicting Interest

The author (s) declare no potential conflict of interest concerning the research, authorship, and publication of the article.

References

1. Prevention FORTHE, Of C, Diseases N. TABLE OF. 2020;
2. Yaya S, Idriss-Wheeler D, Sanogo NA, Vezina M, Bishwajit G. Self-reported activities of daily living, health and quality of life among older adults in South Africa and Uganda: a cross sectional study. *BMC Geriatr.* 2020;20(1):1–11.
3. Maniragaba F, Kwagala B, Bizimungu E, Ojiambo Wandera S, Ntozi J. Predictors of quality of life of older persons in rural Uganda: A cross sectional study. *AAS Open Res.* 2018;1(May):22.
4. Siddharthan T, Kalyesubula R, Morgan B, Ermer T, Rabin TL, Kayongo A, et al. The rural Uganda non-communicable disease (RUNCD) study : prevalence and risk factors of self-reported NCDs from a cross sectional survey. 2021;1–8.
5. Ojo TT, Hawley NL, Desai MM, Akiteng AR, Guwatudde D, Schwartz JI. Exploring knowledge and attitudes toward non-communicable diseases among village health teams in Eastern Uganda : a cross-sectional study. 2017;1–11.
6. Haraldstad K, Wahl A, Andenæs R, Andersen JR, Andersen MH, Beisland E, et al. A systematic review of quality of life research in medicine and health sciences. *Qual Life Res [Internet].* 2019;28(10):2641–50. Available from: <https://doi.org/10.1007/s11136-019-02214-9>
7. Hernández-Segura N, Marcos-Delgado A, Pinto-Carral A, Fernández-Villa T, Molina AJ.

- Health-Related Quality of Life (HRQOL) Instruments and Mobility: A Systematic Review. *Int J Environ Res Public Health*. 2022;19(24).
8. Roemer, Emily J., West, Kesley L., Northrup, Jessica B., Iverson, Jana M, Cho. HHS Public Access. *Physiol Behav*. 2016;176(1):100–106.
 9. Dresden SM, McCarthy DM, Engel KG, Courtney DM. Perceptions and expectations of health-related quality of life among geriatric patients seeking emergency care: A qualitative study. *BMC Geriatr*. 2019;19(1):1–8.
 10. Gyawali B, Khanal P, Mishra SR, van Teijlingen E, Wolf Meyrowitsch D. Building Strong Primary Health Care to Tackle the Growing Burden of Non-Communicable Diseases in Nepal. *Glob Health Action* [Internet]. 2020;13(1). Available from: <https://doi.org/10.1080/16549716.2020.1788262>
 11. Rogers HE, Akiteng AR, Mutungi G, Ettinger AS, Schwartz JI. Capacity of Ugandan public sector health facilities to prevent and control non- communicable diseases : an assessment based upon WHO-PEN standards. 2018;1–13.
 12. Juntunen M, Lehenkari M. A narrative literature review process for an academic business research thesis. *Stud High Educ*. 2021;46(2):330–42.
 13. Tod D, Booth A, Smith B. Critical appraisal. *Int Rev Sport Exerc Psychol* [Internet]. 2022;15(1):52–72. Available from: <https://doi.org/10.1080/1750984X.2021.1952471>
 14. Of Q, Qol L, Review AS. the Impact of Primary Health Care Interventions on Elderly. 2024;20(March):15–32.
 15. Honorato Dos Santos De Carvalho VC, Rossato SL, Fuchs FD, Harzheim E, Fuchs SC. Assessment of primary health care received by the elderly and health related quality of life: A cross-sectional study. *BMC Public Health*. 2013;13(1).
 16. Aguiar RS, da Silva HS. Quality of health care for the elderly in primary care: an integrative review. *Enferm Glob*. 2022;21(1):545–60.
 17. Effendy C, Silva JFDS, Padmawati RS. Identifying palliative care needs of patients with non-communicable diseases in Indonesia using the SPICT tool: a descriptive cross-sectional study. *BMC Palliat Care* [Internet]. 2022;21(1):4–11. Available from: <https://doi.org/10.1186/s12904-021-00881-5>
 18. Heine M, Fell BL, Robinson A, Abbas M, Derman W, Hanekom S, et al. Patient-centred rehabilitation for non- communicable disease in a low-resource setting : study protocol for a feasibility and proof-of-concept randomised clinical trial. 2019;1–12.
 19. Access to rehabilitation in primary health care: an ongoing challenge.
 20. Shi L. The Impact of Primary Care: A Focused Review. *Scientifica (Cairo)*. 2012;2012:1–22.
 21. Haque M, Islam T, Rahman NAA, McKimm J, Abdullah A, Dhingra S. Strengthening primary health-care services to help prevent and control long-term (Chronic) non-communicable diseases in low- and middle-income countries. *Risk Manag Healthc Policy*. 2020;13:409–26.
 22. Shi L. The Impact of Primary Care : A Focused Review. 2012;2012.
 23. Kabir A, Karim MN, Islam RM, Romero L, Billah B. Health system readiness for non-communicable diseases at the primary care level: A systematic review. *BMJ Open*. 2022;12

(2):1–14.

24. Xiong S, Cai C, Jiang W, Ye P, Ma Y, Liu H, et al. Primary health care system responses to non-communicable disease prevention and control: a scoping review of national policies in Mainland China since the 2009 health reform. *Lancet Reg Heal - West Pacific* [Internet]. 2023;31:100390. Available from: <https://doi.org/10.1016/j.lanwpc.2022.100390>
25. Aro AK, Karjalainen M, Tiihonen M, Kautiainen H, Saltevo J, Haanpää M, et al. Use of primary health care services among older patients with and without diabetes. *BMC Prim Care* [Internet]. 2022;23(1):1–8. Available from: <https://doi.org/10.1186/s12875-022-01844-2>
26. Xu RH, Sun R, Tian L, Cheung AW ling, Wong EL. Health-related quality of life in primary care patients: a comparison between EQ-5D-5L utility score and EQ-visual analogue scale. *Health Qual Life Outcomes* [Internet]. 2024;22(1):1–11. Available from: <https://doi.org/10.1186/s12955-023-02215-w>
27. Xu Q, Huang Y, Chen B. Comprehensive assessment of health education and health promotion in five non-communicable disease demonstration districts in China: A cross-sectional study. *BMJ Open*. 2017;7(12).
28. Zheng E, Xu J, Xu J, Zeng X, Tan WJ, Li J, et al. Health-Related Quality of Life and Its Influencing Factors for Elderly Patients With Hypertension: Evidence From Heilongjiang Province, China. *Front Public Heal*. 2021;9(March):1–8.
29. Woo J, Mak B, Yeung F. Age-Friendly Primary Health Care: An Assessment of Current Service Provision for Older Adults in Hong Kong. *Heal Serv Insights*. 2013;6:69–77.
30. Pradesh M. Assessment of primary care facilities for cardiovascular disease preparedness in. *BMC Health Serv Res* [Internet]. 2015;1–8. Available from: <http://dx.doi.org/10.1186/s12913-015-1075-x>
31. Baum F, Freeman T, Lawless A, Labonte R, Sanders D. What is the difference between comprehensive and selective primary health care? Evidence from a five-year longitudinal realist case study in South Australia. *BMJ Open*. 2017;7(4):1–8.
32. Earl-royal E, Feltes M, Gisondi MA, Matheson L, Ohn M, Htoo T, et al. Physicians in Myanmar Provide Palliative Care Despite Limited Training and Low Confidence in Their Abilities. 2020;1:314–20.
33. Xiong S, Cai C, Jiang W, Ye P, Ma Y, Liu H, et al. Review Primary health care system responses to non-communicable disease prevention and control: A scoping review of national policies in Mainland China since the 2009 health reform. *Lancet Reg Heal - West Pacific* [Internet]. 2022;00:100390. Available from: <https://doi.org/10.1016/j.lanwpc.2022.100390>