The Role of Community Health Workers in Health Promotion and Quality of Life among Older Adults: A Community-Based Study

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Abstract

Community Health Workers (CHWs) play a strategic engagement in health promotion and providing social support for the elderly. However, empirical evidence regarding the relationship between the role of CHWs and the quality of life of the elderly remains limited. This research was designed to analyze the association between the engagement of CHWs and the quality of life of older adults. This research adopted an observational analytic design utilizing a cross-sectional approach and involved 602 elderly in sub-districts in Jakarta, Indonesia. *To evaluate the quality of life, the Indonesian version of the WHOQOL-BREF was administered, while CHW performance was quantified using 20 items adapted from established instruments. Data analysis was performed using association tests with Prevalence Ratio (PR) calculations and PLS-SEM. The PR value of 25.7 (95% CI: 6.22–105.7) with a p-value of 0.001 indicates that the role of CHWs is an important factor in maintaining the quality of life of older adults. This is supported by the results of the PLS-SEM analysis, which show that the engagement of CHWs significant effect and has a positive correlation with quality of life ($\beta = 0.284$; $t = 7.712$; $p < 0.001$; $R^2 = 0.080$). Strengthening the capacity of CHWs, expanding service coverage, and adopting a more sensitive approach to the psychological and social conditions of the elderly are needed to enhancing quality of life.*

Keywords: Quality of Life, Elderly, Community Health Worker, Primary Health Center, Health Promotion.

INTRODUCTION

Indonesia is currently shifting into an aging demographic as the share of older adults continues to grow reaching 11.75% in 2024 and projected to increase by more than 20% in 2045 published by Indonesia's National Development Planning Agency (BPS, 2022). Although life expectancy in Indonesia has increased to 72.39 years, this improvement is not matched by a corresponding rise in Healthy Life Expectancy (HALE), which remains at 62.8 years. Consequently, older adults spend an average of approximately 8.8 years living with dependency and reduced quality of life. This condition creates significant health, social, and economic challenges, especially in urban areas such as Jakarta (BPS, 2024; Peraturan Menteri Kesehatan RI Nomor 21 Tahun 2020, 2020). This demographic transition places increasing dependency pressures on the working-age population. Consequently, active aging has been established as a central objective of government initiatives, seeking to promote optimal quality of life among older adults throughout the life course. Nevertheless, older adults with chronic illnesses face a heightened risk of disability in later life (IHME, 2021). The Ministry of Health

measures the quality of life of the elderly using five dimensions: mobility, independence in self-care, ability to carry out daily activities, without pain, and without anxiety (Berita Negara Penyelengaraan Pelayanan Geriatri Di Rumah Sakit, 2014; Kemenkes RI, 2019).

According to BPS data, Indonesia is dominated by elderly people living with three generations of family 35.9%, followed by elderly people living with family 33.2%, with partners 20.9%, living alone 7.3%, and others 2.8% (BPS, 2022). As the social unit closest to older adults, the family holds extensive rights and prospects to engage in enhancing elderly welfare. In addition to family support, community participation can take place at multiple levels, including individual-level, cluster, local population, social organization, and community-based organization levels (Cicih, 2019). Social support enhances older adults' self-confidence and may serve as an effective approach to improving quality of life, particularly through the engagement of Community Health Workers (CHWs).

Community Health Workers are strategic role in promotion and strengthening health service delivery and referral systems for older adults (Rahmawati & Bajorek, 2015), thereby minimizing the risk of social and healthcare neglect (Ezalina et al., 2020). Achieving healthy and active aging necessitates a holistic approach that addresses physical, psychological, social, economic, and spiritual dimensions of health, as population aging is often accompanied by lifestyle-related conditions that substantially compromise quality of life. Evidence from a review of 40 studies across eight countries indicates that, despite variations in terminology, CHWs consistently function as key agents in delivering health promotion, guidance, and sustained community-based support (Van Iseghem et al., 2023). The relationship between the engagement of Community Health Workers (CHWs) and quality of life (QoL) among older adults can be explained through several interrelated mechanisms supported by previous studies. CHWs improve access to healthcare services by delivering essential promotive and preventive interventions at the community level, which enables older adults to receive timely and continuous care. Improved access to healthcare has been consistently associated with better health outcomes and higher QoL (Kim et al., 2024; World Health Organization, 2023). In addition, CHWs strengthen social support through regular interaction and community engagement within the framework of healthy and active aging. This role helps reduce loneliness and social isolation, which are major determinants of poor mental health in older populations. Stronger social support has been shown to significantly improve psychological well-being and overall QoL (Chen et al., 2024).

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METHOD

This study employed an observational quantitative design to assess the relationship between the role of Community Health Workers (CHWs) and quality of life among older adults. A cross-sectional approach was used to capture participants' quality of life and related characteristics at a specific point in time. The conduct of the study comprised preliminary team discussions, ethical and administrative approval by LPPM UKI number 431/UKI.LPPM/PPM.00.02/2025**,** field surveys, instrument development, enumerator training, data collection, data processing, and dissemination of findings.

CHWs in this study worked within the service area of the Primary Health Center (PHC), covering several villages/neighborhoods under the PHC jurisdiction. Participants were selected using cluster random sampling, where the clusters were defined as villages within the catchment areas of selected Primary Health Centers. Villages were randomly selected, and all eligible older adults within each selected cluster were included in the study. Inclusion criteria

were: (1) aged 60–75 years; (2) cognitively intact and able to cooperate in completing the questionnaire; and (3) capable of performing activities of daily living. Older adults with dependency were excluded from the study.

Data collection was carried out through direct face-to-face interviews by trained interviewers. During the interviews, responses were recorded using Google Forms to ensure accurate and efficient data entry. To minimize interviewer bias, interviewers followed a standardized protocol, avoided leading questions, and were supervised during data collection. Participants were assured of confidentiality and encouraged to respond honestly.

The role of CHWs was assessed using a 20-item instrument adapted from (Hidayah, 2014), which was originally developed to measure older adults' perceptions of CHWs roles in PHC services. The original instrument demonstrated acceptable validity and reliability, with item–total correlation coefficients ranging from 0.848 to 0.870 and a Cronbach's alpha of 0.865. However, the adapted instrument was not re-tested for validity and reliability in the current study population. Responses were measured using a 4-point Likert scale (1 = never to 4 = always), and total scores were categorized into good (>40–60) and poor (<40) CHW roles.

The instrument adapted from Hidayah (2014) consists of three domains reflecting CHWs' roles in PHC: (1) preparation activities (before implementation), such as informing schedules and preparing materials; (2) implementation activities (during service), including registration, basic health assessment, health education, and assistance during services; and (3) follow-up activities (after Posyandu), such as home visits, monitoring older adults' conditions, and referral support.

Comprising 26 questions divided across four domains—physical health, psychological well-being, social relationships, and environmental conditions—the Indonesian-adapted WHOQOL-BREF questionnaire was employed to measure the quality of life of the participants (WHO, 2004). Responses to each item were recorded measured on a five-point Likert scale ranging from 1 to 5, with smaller values denoting very poor responses and higher scores representing very good responses. Overall quality of life scores were categorized as good (>65) or poor (≤65).

The data analysis procedures were executed via IBM SPSS Statistics version 21.0 for Windows (released by IBM Corp., Armonk, NY, USA). Bivariate analyses were performed to examine associations between variables using Fisher's Exact Test. Prevalence ratios (PRs) were calculated to estimate the magnitude of associationsAdditionally, relationships among latent variables were assessed through Partial Least Squares–Structural Equation Modeling

(PLS-SEM). This analysis included evaluation of construct validity and reliability, as well as estimation of the strength and direction of relationships through path coefficients and coefficients of determination (R^2). In the structural model A1–A3 represent the three indicators of the CHW role, covering activities before, during, and after services, respectively. B1–B4 represent the four dimensions of older adults' quality of life: physical health, psychological health, social relationships, and environment.

RESULTS

Table 1. Association between the Role of Community Health Workers (CHWs) and Quality of Life among Older Adults (n = 602)

Role of CHWs	Quality of Life		Total n (%)	PR (95% CI)	p-value
	Good (%)	Poor (%)			
Good (%)	581 (96.8%)	4 (0.7%)	585 (97.2%)	25,7 (6,22–105,7)	0,001
Poor (%)	14 (2.3%)	3 (0.5%)	17 (2.8%)		
	595 (98.8%)	7 (1.2%)	602 (100%)		

Most respondents were aged 60–69 years (73%) and were distributed across seven sub-districts within the Primary Health Center service area. The respondent included both male and female older adults, with the majority being female. Participants were recruited from villages/urban wards covered by the selected PHCs. Overall, most respondents perceived the role of CHWs as good (96.8%), and nearly all reported good quality of life (98.8%). In addition, WHOQOL scores were analysed by domain, including physical health, psychological well-being, social relationships, and environmental health. Similarly, the role of CHWs was described across three domains, preparation activities, implementation activities and follow-up activities.

Correlation analysis was conducted using Fisher's Exact Test due to the presence of expected cell counts below five. To determine the strength of the association, the Prevalence Ratio (PR) and its corresponding 95% confidence interval (CI) were calculated via a generalized linear model assuming a binomial distribution and utilizing a log link. The Fisher's Exact Test revealed a statistically significant association between the role of CHWs and older adults' quality of life (p = 0.001). Older adults exposed to a poor CHW role demonstrated a substantially higher proportion of poor quality of life (17.6%) compared with those exposed to a good CHW role (0.7%). The estimated PR of 25.7 (95% CI: 6.22–105.7) indicates that older adults experiencing a poor CHW role were approximately 26 times more likely to report poor quality of life than those receiving a good CHW role.

Following the bivariate analysis, Partial Least Squares–Structural Equation Modeling (PLS-SEM) was employed to further corroborate these results and clarify the underlying structural

associations. The role of Community Health Workers (CHWs) was specified as a latent construct reflected by their roles before (A1), during (A2), and after Posyandu activities (A3), while older adults' quality of life was modeled as a latent construct comprising four domains: physical (B1), psychological (B2), social (B3), and environmental (B4) (Figure 1).

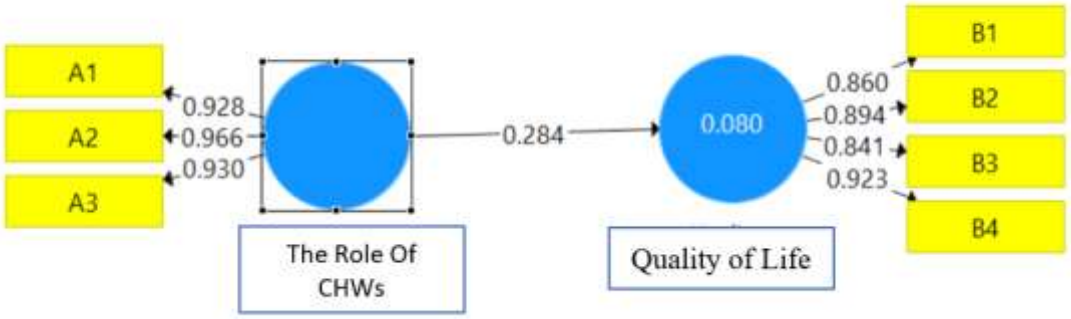


Figure 1. Structural Equation Modeling via Partial Least Squares on the Impact of Community Health Workers (CHWs) on the Quality of Life Among Older Adults

In the PLS-SEM model, the latent construct Role of Community Health Workers (CHWs) was measured using three domains (A1-A3). The latent construct Quality of Life (QoL) was assessed using WHOQOL four domains (B1-B4). Each domain was treated as a reflective indicator representing the overall construct. PLS-SEM analysis was performed to assess whether the structural relationship between the role of Community Health Workers (CHWs) and older adults' quality of life, while simultaneously evaluating the measurement model. The results indicated that all indicators exceeded the recommended minimum threshold for outer loadings (≥0.70). Specifically, outer loading values for the CHW role indicators ranged from 0.928 to 0.966, whereas those for the quality of life construct ranged from 0.841 to 0.923.

Bootstrapping results further demonstrated that all indicators contributed significantly to their respective constructs, with t-statistic values exceeding 1.96, thereby confirming convergent validity. Further evaluation of the structural model demonstrated that the CHWs role was a positive related and statistically significant effect on older adults' quality of life ($\beta = 0.284$; $t = 7.712$; $p < 0.001$). The coefficient of determination (R^2) for the quality of life construct was 0.080, indicating that the role of CHWs accounted for approximately 8% of the variance in older adults' quality of life, while the remaining variance was attributable to factors not included in the model.

DISCUSSION

Beyond confirming the importance of CHWs, this study adds novel evidence by quantifying the substantial risk associated with inadequate CHW involvement and elucidating psychosocial mechanisms through which CHWs influence older adults' quality of life in a community-based setting. Frequent interactions between CHWs and older adults contribute to the development of accessible and enjoyable activities, wich may subsequently strengthen self-confidence and Psychological status (Elhag et al., 2025). Increased self-confidence encourages continued participation in community activities, positively influencing social relationships, mental health, and physical functioning. In addition, the health-promotive role of CHWs contributes to improved health literacy, supports healthier lifestyle behaviors, and promotes greater independence among older adults, thereby reinforcing overall quality of life. Moreover, the role of Community Health Workers (CHWs) in delivering health promotion and facilitating the acquisition of practical skills contributes to greater adherence to healthy lifestyle behaviors and enhanced independence among older adults, ultimately leading to improvements in overall quality of life (Aihemaiti et al., 2025).

The findings of this study are supported by a systematic review of 40 studies conducted across eight countries, which demonstrated that the engagement of Community Health Workers (CHWs) in community-based health services plays a critical role in reaching vulnerable populations (Van Iseghem et al., 2023). This effectiveness may be related to the strong social connectedness of CHWs within the communities they serve (Liu & Yang, 2025). Because many CHWs come from the same communities as the older adults they support, they can connect community needs and available resources with formal health services. This community-based position has been characterized in previous literature as serving a "cultural broker" or "bridge" function (Schaaf et al., 2020). Familiarity with the local community may also strengthen trust and facilitate the acceptance of CHWs. This enables them to adapt health-related activities and support to local values, norms, and socio-cultural conditions.

In this study, the high prevalence ratio suggests a marked difference in the likelihood of poor quality of life among older adults according to the level of CHWs role performance. Older adults who received adequate support from CHWs were less likely to experience poor quality of life than those who received inadequate support. The findings also suggest that consistent CHW support may be particularly relevant for older adults experiencing anxiety, who tended to report a stronger perceived role of CHWs when support was available. Conversely, when CHW services were limited or absent, whether because of social withdrawal among older adults or constraints in CHW capacity, participants were more likely to perceive the role of CHWs as inadequate. These findings indicate that CHW role performance has

practical implications for supporting the well-being and quality of life of older adults, particularly within community-based health services.

The relatively modest coefficient of determination (R^2) suggests that older adults' quality of life is shaped by a complexity of the outcome and multifactorial (Klompstra et al., 2019; Leeuwen et al., 2019). Nevertheless, these findings confirm that the role of CHWs makes a meaningful and statistically significant contribution to older adults' quality of life and may exert a greater impact when integrated with other supportive determinants.

The findings of this study indicate that the role of CHWs is already highly effective in supporting older adults' health. Nevertheless, strengthening CHWs' capacity to reach all older adults remains essential to ensure that no individual is overlooked or excluded (Bastos et al., 2021; Spadoni et al., 2024). To maximize the impact of CHWs on older adults' quality of life, comprehensive outreach strategies are required, including area-based mapping to identify both active and vulnerable older adults (Karimi-dehkordi et al., 2024), the integration of community-based activities with home visit programs (Wei et al., 2025), and communication approaches that are sensitive to older adults' psychological conditions (Giebel et al., 2022). In addition, fostering collaboration with families is crucial to ensure that no older adults are left behind, enabling CHWs led interventions to achieve equitable reach and contribute to sustained improvements in overall quality of life.

This investigation builds on existing data by delivering a measurable evaluation of the link between CHW duties and older adults' life quality. The findings show a substantial difference in the prevalence of poor quality of life between older adults who received adequate CHW support and those who experienced inadequate support. The use of PLS-SEM further enabled the study to assess the relationship between CHW roles and quality of life across multiple dimensions, providing a broader perspective than an analysis based solely on a single outcome measure. The findings also point to the potential psychosocial benefits of CHWs support, including greater self-confidence, social engagement, and psychological reassurance. In this context, CHWs may serve not only as providers of community-based health support but also as intermediaries who connect older adults with available health services while taking local social and cultural conditions into account. These findings contribute to the evidence base for community-based health promotion among older adults in an urban Indonesian setting.

A further limitation is that the CHW role instrument was adapted from a measure originally developed to assess older adults' perceptions of CHW roles in *posyandu* services. Although the instrument demonstrated good validity and reliability in the present study, its broader application to the general role of CHWs may require further validation in different

community-based contexts.

From a practical perspective, strengthening CHWs capacity through regular training and supportive supervision may help improve the delivery of community-based support for older adults. The findings also indicate the potential value of CHW-led interventions in promoting quality of life, particularly when their roles are adequately supported within the primary healthcare and community systems. Further research using validated measurement instruments and longitudinal designs would help clarify the relationships identified in this study and provide stronger evidence regarding the contribution of CHWs to older adults' well-being.

CONCLUSIONS

This study found a significant positive association between CHW role performance and quality of life among older adults. The bivariate analysis showed a substantially higher prevalence of poor quality of life among participants reporting inadequate CHW support 0(17.6%) than among those receiving adequate support (0.7%), with a prevalence ratio of 25.7 (95% CI: 6.22–105.7; p = 0.001). These findings are supported by the PLS-SEM analysis identified a positive relationship that reached statistical significant between CHW roles and quality of life ($\beta = 0.284$; $t = 7.712$; $p < 0.001$), while the model accounted for a relatively limited proportion of the variance ($R^2 = 0.080$). Taken together, the findings suggest that CHWs' role performance is relevant to the quality of life of older adults, despite the multifactorial nature of this outcome and the limited explanatory power of the structural model. Strengthening CHWs capacity through regular training, supportive supervision, broader community outreach, and collaboration with families may help improve the reach and continuity of community-based support. These efforts could contribute to enhancing of community-based approaches aimed at promoting healthy and active aging among older adults.

REFERENCE

Aihemaiti, Y., Li, Z., Tong, Y., Ma, L., & Li, F. (2025). Influence of health literacy and self-management on quality of life among older adults with hypertension and diabetes in Northwest China. *Experimental Gerontology*, *206*(393), 112776. https://doi.org/10.1016/j.exger.2025.112776

Bastos, J., Neto, F., Lorna, G., Moraes, A. De, & Aredes, J. D. S. (2021). Building the capacity of community health workers to support health and social care for dependent older people in Latin America : a pilot study in Fortaleza , Brazil. *BMC Geriatrics*, *21*(526), 1–9.

Berita Negara Penyelengaraan Pelayanan Geriatri Di Rumah Sakit, Permenkes RI 1 (2014).

BPS. (2022). *Statistik Penduduk Lanjut Usia 2022*.

BPS. (2024). *[Metode Baru] Umur Harapan Hidup Saat Lahir (UHH) (Tahun), 2022-2024*. 15 November 2024.

Cicih, L. H. M. (2019). Info Demografi BKKBN. *Demografi BKKBN*, *1*, 16.

Elhag, S., Niechcial, M. A., Potter, L., & Gow, A. J. (2025). Exploring the impact of community-based interventions on healthy older adults ' physical health , psychological

wellbeing , and social connections : A systematic review. *Ageing Research Reviews*, *111*(May), 102784. https://doi.org/10.1016/j.arr.2025.102784

Ezalina, E., Machmud, R., Effendi, N., & Maputra, Y. (2020). Analisis Bentuk Pengabaian yang Dialami Lansia yang Tinggal Bersama Keluarga. *Jurnal Keperawatan Jiwa*, *8*(1), 83–88. https://doi.org/10.26714/jkj.8.1.2020.83-88

Giebel, C., Shrestha, N., Reilly, S., White, R. G., Zuluaga, M. I., Saldarriaga, G., Liu, G., Allen, D., & Gabbay, M. (2022). Community _ based mental health and well _ being interventions for older adults in low _ and middle _ income countries : a systematic review and meta _ analysis. *BMC Geriatrics*, *22*(773), 1–27. https://doi.org/10.1186/s12877-022-03453-1

Hidayah, R. (2014). *Gambaran Persepsi Lansia Tentang Tugas Kader di Posyandu Lansia Mawar Kelurahan Sukamaju Baru Kecamatan Tapos Tahun 2014*. Universitas Islam Negeri Syarif Hidayatullah.

IHME, I. for H. M. and E. (2021). *Indonesia Both Sexes, All Ages, 2019, YLD'S attributable to All Risk Factors*. University of Washington.

Karimi-dehkordi, M., Hanson, H. M., & Kennedy, M. (2024). Mapping Quality Indicators to Assess Older Adult Health and A Systematic Review of Reviews and Guidelines. *Healthcare*, *12*(1397), 1–19.

Kemenkes RI. (2019). Policy Paper Analisis Kebijakan Mewujudkan Lanjut Usia Sehat Menuju Lanjut Usia Aktif (Active Ageing). In *Analisis Determinan Kesehatan*.

Klompstra, L., Ekdahl, A. W., Krevers, B., Milberg, A., & Eckerblad, J. (2019). Factors related to health-related quality of life in older people with multimorbidity and high health care consumption over a two-year period. *BMC Geriatrics*, *19*(187), 1–8.

Leeuwen, K. M. Van, Loon, M. S. Van, Nes, F. A. Van, Bosmans, E., Id, H. C. W. D. V., Ket, J. C. F., Widdershoven, G. A. M., & Ostelo, R. W. J. G. (2019). What does quality of life mean to older adults ? A thematic synthesis. *PLoS ONE*, *14*(3), 1–39. https://doi.org/10.1371/journal.pone.0213263

Liu, Y., & Yang, S. (2025). The impact of community older adult care services on the quality of life of older adults in China : the mediating role of social adaptation. *Frontiers in Public Health*, *13*(April), 1–14.

Peraturan Menteri Kesehatan RI Nomor 21 Tahun 2020, Kepala Biro Hukum dan organisasi Sekretaris Jenderal Kementerian Kesehatan 8 (2020).

Rahmawati, R., & Bajorek, B. (2015). PREVENTING CHRONIC DISEASE A Community Health Worker–Based Program for Elderly People With Hypertension in Indonesia: A Qualitative Study, 2013. *Centers for Disease Control and Prevention*, *12*(E175), 1–9.

Schaaf, M., Warthin, C., Freedman, L., Topp, S. M., & Freedman, L. (2020). The community health worker as service extender , cultural broker and social change agent : a critical interpretive synthesis of roles , intent and accountability. *BMJ Global Health*, *5*(e002296), 1–13.

Spadoni, N., Baron, A., Zavala, E., Burns, M., Draw, K., Hernandez, W., Bennett, J., Gleason, L., & Levine, S. (2024). Community Health Worker Training on Older Adults: A Qualitative Needs Assessment. *J Am Geriatr Soc*, *72*(9), 2825–2833. https://doi.org/10.1111/jgs.19077.Community

Van Iseghem, T., Jacobs, I., Vanden Bossche, D., Delobelle, P., Willems, S., Masquillier, C., & Decat, P. (2023). The Role Of Community Health Workers In Primary Healthcare In The WHO-EU Region: A Scoping Review. *International Journal for Equity in Health*, *22*(134), 1–15. https://doi.org/10.1186/s12939-023-01944-0

Wei, C., Xu, Z., Meng, D., Wang, A., Hua, D., Zhu, Q., & Li, G. (2025). Association of home- and community-based services with health-related quality of life among Chinese older adults. *BMC Public Health*, *25*(3976), 1–10.

WHO. (2004). *The World Health Organization QUALITY OF LIFE (WHOQOL) -BREF*. World Health Organization.