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ORIGINAL RESEARCH

Assessing the Impact of Community Health Coaching on Self-Management of Chronic Illness Among Older Adults: A Cross-Sectional Approach

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Background: Chronic illnesses among older adults require effective self-management strategies. Community health coaching, which provides personalized guidance and support, has shown promise in improving self-management behaviors and patient activation. This study examines the impact of health coaching on self-management among older adults and investigates the mediating role of patient activation.

Methods: A cross-sectional study was conducted with 200 older adults with chronic illnesses attending primary healthcare centers in Riyadh, Saudi Arabia. Data were collected using the Patient Activation Measure (PAM-13), Self-Management Behavior Scale (SMBS), and Health Coaching Perception Questionnaire (HCPQ). Multiple regression and mediation analyses were conducted to assess the relationships between health coaching, patient activation, and self-management behaviors.

Results: Health coaching was significantly associated with improved self-management behaviors ($\beta = 0.42$, $p < 0.001$). Higher satisfaction with coaching was related to better medication adherence and dietary modification. Patient activation partially mediated the relationship between health coaching and self-management, with an indirect effect coefficient of 0.22 ($p < 0.01$). The results highlight the role of activation in enhancing health coaching effectiveness.

Conclusion: Community health coaching positively influences self-management behaviors in older adults, with patient activation serving as a critical mediator. Integrating health coaching into primary care could improve chronic illness management and support healthy aging.

Keywords: health coaching, self-management, patient activation, older adults, chronic illness, primary healthcare, Saudi Arabia

Introduction

Chronic illness represents a significant global health challenge, particularly among aging populations, who experience both increased prevalence of chronic conditions and complexities in managing them independently.[1] The World Health Organization (WHO) has highlighted the growing impact of chronic diseases on morbidity and mortality among older adults, estimating that by 2030, chronic conditions will account for 70% of all deaths worldwide, with the majority occurring among individuals aged 60 and older.[2,3] Conditions such as diabetes, hypertension, and heart disease require consistent self-management, but older adults often encounter barriers, including functional limitations, cognitive decline, and limited access to healthcare resources.[4,5] These challenges underscore the urgent need for innovative approaches that support self-management in this population.[6]

Self-management involves the daily actions individuals take to monitor and manage their health, including medication adherence, symptom monitoring, lifestyle modifications, and engaging in preventive health behaviours.[7] However, older adults may struggle with these aspects due to reduced physical ability, social isolation, and economic constraints.[8] Additionally, self-management practices often require knowledge, skills, and motivation, which can be enhanced by supportive interventions

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such as community health coaching.[9] Health coaching is an approach that provides personalized guidance, encouragement, and accountability, focusing on empowering patients to take an active role in managing their health.[10]

Community health coaching is particularly relevant in chronic illness management because it extends beyond traditional healthcare settings, offering support within the community, where individuals live and engage in daily activities.[11] Coaches, who may be healthcare professionals or trained laypeople, work directly with patients to develop self-care skills, set realistic health goals, and overcome obstacles.[12] In the context of chronic illness, health coaching has been associated with improved self-management behaviours, such as increased physical activity, better dietary habits, and higher rates of medication adherence.[13–15] These findings align with Bandura's theory of self-efficacy, which emphasizes the role of confidence in one's ability to perform specific behaviours as a determinant of health behaviour adoption and maintenance.[16]

Empirical studies have shown promising outcomes of health coaching in enhancing self-management among older adults. For instance, a randomized control trial demonstrated that older adults receiving health coaching exhibited improved blood pressure control and adherence to antihypertensive medications.[17] Similarly, health coaching significantly increased patient engagement in self-management tasks, thereby reducing emergency department visits and hospitalizations.[18] These studies suggest that community health coaching not only improves clinical outcomes but also has the potential to decrease healthcare costs associated with unmanaged chronic illness.

Despite these benefits, community health coaching remains underutilized in chronic disease management programs, particularly in the context of aging populations.[19] This gap in application may be attributed to several factors, including limited funding, lack of standardized training for health coaches, and insufficient evidence on long-term outcomes.[20] Additionally, healthcare providers may lack awareness of the role that non-clinical, supportive interventions like health coaching can play in chronic disease management.[21] However, as the healthcare system faces increasing pressures from an aging population, the need for cost-effective, community-based interventions is becoming more urgent.[22]

In Saudi Arabia, where this study is based, the prevalence of chronic illness among older adults is rising due to demographic shifts and lifestyle changes associated with urbanization.[23] The Saudi Vision 2030 initiative, which aims to improve the quality of healthcare services and promote healthier lifestyles, highlights the need for innovative approaches to manage chronic diseases in the aging population.[24] While primary healthcare facilities are essential in addressing acute health needs, they are often less equipped to support chronic disease management, particularly in rural and underserved areas.[25] Community health coaching offers a viable solution to bridge this gap by empowering older adults to self-manage their conditions and reduce dependence on healthcare services.[26]

To our knowledge, this is among the first studies in Saudi Arabia to examine community health coaching as a tool for chronic disease self-management among older adults. The findings of this study could contribute to the broader literature by providing evidence on the effectiveness of health coaching in diverse cultural contexts. Furthermore, the study's results could guide the development of targeted interventions that align with the goals of Saudi Vision 2030, ultimately improving the quality of life for older adults living with chronic illnesses.[27–30]

Given these dynamics, this study aims to assess the impact of community health coaching on self-management of chronic illness among older adults in Saudi Arabia. By employing a cross-sectional design, the study will provide insights into the relationship between health coaching and key self-management outcomes, such as medication adherence, lifestyle modification, and patient satisfaction. This research is particularly timely, as the results can inform public health strategies and policies to enhance chronic illness management among older adults.

Research Question

What is the impact of community health coaching on self-management practices among older adults with chronic illnesses?

Materials and Methods

Study Design

This study utilized a cross-sectional design to assess the impact of community health coaching on self-management of chronic illness among older adults. This design provides a snapshot of how health coaching is associated with self-management behaviours among patients within primary healthcare centres in Riyadh City, Saudi Arabia.

Study Setting

The research was conducted in primary healthcare centres in Riyadh City, Saudi Arabia, where older adults regularly attend for chronic illness management and monitoring. Riyadh, as the capital and a highly urbanized region, provides a relevant setting due to its diverse population and the increasing prevalence of chronic conditions among its elderly population. This setting allowed for a targeted examination of health coaching's role within a primary care framework.

Sample and Sampling

Target Population

The target population for this study comprised older adults, aged 60 years and above, with a diagnosed chronic illness such as diabetes, hypertension, cardiovascular disease, or other long-term health conditions, who are regular attendees of primary healthcare centres in Riyadh City, Saudi Arabia. This population was chosen to understand the impact of community health coaching on self-management practices among elderly individuals who face unique challenges in managing chronic illnesses, including potential physical limitations, limited access to resources, and varying levels of health literacy.

Inclusion and Exclusion Criteria

Inclusion Criteria

1. Adults aged 60 years or older.
2. Diagnosed with at least one chronic condition requiring continuous self-management (eg, diabetes, hypertension, cardiovascular disease).
3. Actively attending primary healthcare centres in Riyadh City for chronic illness management.
4. Participants with prior experience in community health coaching as part of their chronic disease management support within the primary healthcare system.

Exclusion Criteria

1. Individuals experiencing an acute health crisis (eg, recent hospitalization due to a severe complication related to their chronic condition) at the time of data collection.
2. Patients with cognitive impairments or dementia that may hinder their ability to complete the study instruments independently or provide informed consent.
3. Individuals who do not attend community health coaching sessions regularly, as they would lack sufficient exposure to the intervention being studied.

Sampling Method

The study employed purposive sampling, a non-probability sampling technique, to recruit participants who met the specific inclusion criteria and were expected to provide relevant insights into the research objectives. Purposive sampling was selected due to its ability to target a specific subset of the population—older adults with chronic illness who actively participate in community health coaching—making it an efficient approach to explore the relationship between health coaching and self-management.

Sample Size Determination

To determine the appropriate sample size, a power analysis was conducted, considering the study's primary aim of assessing the relationship between health coaching and self-management outcomes. Based on previous studies exploring the impact of health coaching on chronic illness management, an effect size of 0.5 was expected. With a significance level of 0.05 and a desired statistical power of 0.80, it was estimated that a sample size of approximately 200 participants would provide sufficient power to detect significant differences or associations in self-management outcomes.

This sample size was also adjusted to account for potential non-responses or incomplete data, ensuring that the final dataset retained statistical integrity. A sample size of 200 was deemed feasible within the study's timeframe and was also considered manageable for data collection at the selected primary healthcare centres.

Recruitment Process

Participants were recruited from five primary healthcare centers in Riyadh, Saudi Arabia that offer community health coaching as part of their chronic illness management services. Recruitment involved collaboration with healthcare staff, who helped identify eligible patients based on the inclusion and exclusion criteria. Staff members briefly introduced the study to patients during their regular clinic visits, explaining the purpose, voluntary nature, and confidentiality of the research.

Patients interested in participating were then approached by a member of the research team, who provided further details and answered any questions. Those who agreed to participate provided written informed consent before proceeding with the study questionnaires. The recruitment process was designed to ensure ethical standards and participant comprehension, with a particular focus on accommodating any literacy or language barriers by having staff fluent in Arabic to assist with clarifications.

Data Collection Tools

To comprehensively assess the impact of community health coaching on self-management among older adults with chronic illnesses, we employed a selection of standardized, license-free tools. These tools were chosen for their relevance, cultural adaptability, and validation in self-management and health coaching studies, ensuring reliable measurement of study variables within the Saudi Arabian context. The data collection instruments included the Patient Activation Measure (PAM-13), the Self-Management Behaviour Scale (SMBS), the Health Coaching Perception Questionnaire (HCPQ), and a Sociodemographic and Health Profile Questionnaire. All questionnaires were administered in Arabic, with careful adaptation to ensure linguistic and cultural appropriateness.

Patient Activation Measure (PAM-13)

The Patient Activation Measure (PAM-13) is a concise, 13-item questionnaire designed to assess patients' level of knowledge, skills, and confidence in managing their own health. It functions as an indicator of "activation", or the extent to which patients are empowered to take charge of their health and engage in proactive behaviours. Each item on the PAM-13 is rated on a 4-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree", with an additional "Not Applicable" option, allowing participants to express varying degrees of confidence and readiness for health-related self-management. The responses are then aggregated into a single activation score, divided into four levels: Level 1 indicates low activation, suggesting limited knowledge and confidence, while Level 4 indicates high activation, signifying that patients feel empowered and capable of effectively managing their health. The PAM-13 has been validated extensively across diverse populations, making it a reliable tool to measure engagement and self-management among older adults with chronic illnesses. For this study, minor linguistic adaptations were made to the Arabic version to ensure clarity and cultural alignment with the Saudi population.

Self-Management Behaviour Scale (SMBS)

The Self-Management Behaviour Scale (SMBS) is a comprehensive tool that evaluates specific self-management activities essential for individuals with chronic conditions. It encompasses items that measure behaviours such as medication adherence, symptom monitoring, dietary practices, and physical activity. Participants rate the frequency of these behaviours on a 5-point scale, ranging from "Never" to "Always", providing both an overall self-management score and domain-specific insights. This structure allows for an in-depth understanding of how consistently patients engage in daily actions that support chronic illness management. The SMBS was selected for this study due to its robust reliability and applicability in chronic illness populations, where sustained self-management behaviours are key to preventing complications and improving quality of life. For use in this Saudi context, culturally relevant adaptations were made, particularly in items related to diet and exercise, ensuring that the questions were both relatable and meaningful for the participants.

Health Coaching Perception Questionnaire (HCPQ)

The Health Coaching Perception Questionnaire (HCPQ) was adapted specifically to gauge participants' perceptions of the community health coaching experience, focusing on elements central to effective coaching such as goal setting, motivation, accountability, and overall satisfaction. This tool comprises several items rated on a 5-point Likert scale, from "Strongly Disagree" to "Strongly Agree". Questions probe into areas such as whether the coaching sessions helped participants set achievable health goals, motivated them to take ownership of their health, and provided the necessary support to adhere to self-management practices. The HCPQ provides an aggregate score reflecting participants' overall satisfaction with and perceived benefit from the health coaching, with higher scores indicating a more positive perception. In this study, the HCPQ's cultural adaptation involved linguistic adjustments to ensure it accurately captured the experience and value of health coaching from the participants' perspectives in the Saudi healthcare setting.

Sociodemographic and Health Profile Questionnaire

The Sociodemographic and Health Profile Questionnaire was developed for this study to gather essential baseline data on participants' demographics and health characteristics, which are crucial for contextualizing the self-management and coaching outcomes. This questionnaire includes questions on age, gender, education level, type and duration of chronic illness, and frequency of healthcare utilization, among other factors. These items are structured with categorical and numerical response options, facilitating straightforward and consistent data collection. This questionnaire enables the analysis of how sociodemographic factors may influence self-management behaviours and satisfaction with health coaching. Special attention was given to ensure that the language used in this section was simple and culturally sensitive, allowing participants to accurately reflect their personal and health-related information.

Data Collection Procedure

Data collection for this study took place between September and October 2024 at primary healthcare centers across Riyadh City, Saudi Arabia. A systematic approach was followed to ensure accuracy, consistency, and ethical integrity throughout the data collection process. Trained members of the research team coordinated with healthcare staff at each center to recruit participants and facilitate the administration of questionnaires.

The data collection involved administering four structured questionnaires: the Patient Activation Measure (PAM-13), the Self-Management Behaviour Scale (SMBS), the Health Coaching Perception Questionnaire (HCPQ), and a Sociodemographic and Health Profile Questionnaire. The administration process was carefully planned to ensure that participants could complete the questionnaires with minimal burden.

1. Setting and Support: Participants were given the option to complete the questionnaires in a quiet area of the healthcare centre, with ample seating and privacy to reduce distractions and ensure a comfortable environment. Research team members, fluent in Arabic, were available to provide assistance with reading or clarifying questions if needed, particularly for participants with visual impairments or low literacy levels.
2. Questionnaire Flow: To streamline the process, questionnaires were presented in a set sequence, beginning with the Sociodemographic and Health Profile Questionnaire to gather baseline information. The PAM-13 followed, assessing participants' activation and engagement in managing their health. Next, participants completed the SMBS, which focused on specific self-management behaviours, and finally, the HCPQ, which captured their perceptions of the health coaching experience. This sequence allowed participants to first reflect on general health behaviours and experiences, then proceed to more specific aspects of self-management and health coaching.
3. Completion Time and Instructions: The estimated time for participants to complete all questionnaires was approximately 20–25 minutes. Participants were instructed to answer each item as accurately as possible based on their recent experiences, with a particular emphasis on recalling their engagement with self-management behaviours and health coaching over the previous six months. Instructions were provided both verbally and in writing to accommodate different learning preferences and ensure that participants were clear on how to rate each item.

Data Quality and Handling

To ensure data quality and completeness, each completed questionnaire set was reviewed on-site by a research team member. This immediate review process allowed for the identification and resolution of any incomplete or unclear responses in real-time. Participants were respectfully asked to clarify or complete missing items, if necessary, which helped minimize data loss and ensure that responses accurately reflected their experiences and perspectives.

1. Minimizing Response Bias: Research team members emphasized the confidentiality of responses, assuring participants that their answers would be anonymized and used solely for research purposes. This approach aimed to reduce social desirability bias, encouraging participants to answer truthfully without concern for potential judgment from healthcare providers.
2. Data Entry and Verification: After data collection, all responses were entered into a secure electronic database by trained data entry staff. Double data entry was employed, where two independent team members entered the same data to cross-check for accuracy. Any discrepancies between entries were resolved through verification with the original hardcopy questionnaires. This step ensured a high level of data accuracy and reliability, critical for the validity of subsequent analyses.

Data Analysis

Data analysis was conducted using SPSS version 27, with a focus on both descriptive and inferential statistics to examine the relationships between community health coaching and self-management outcomes among older adults with chronic illnesses. First, descriptive statistics, including means, standard deviations, frequencies, and percentages, were calculated to summarize the sociodemographic and health-related characteristics of the sample, as well as to provide an overview of self-management behaviors, patient activation levels, and perceptions of health coaching. For inferential analysis, a series of statistical tests were employed to explore associations and differences among study variables. Chi-square tests were conducted to assess relationships between categorical variables, such as gender and satisfaction with health coaching. Additionally, independent *t*-tests and one-way ANOVA tests were used to compare mean self-management scores across different demographic groups, including age and education levels. Multiple regression analysis was performed to examine the effect of health coaching on self-management behaviors, adjusting for potential confounders like age, gender, and type of chronic illness. To further investigate the role of patient activation, mediation analysis was conducted to assess whether the activation level (as measured by PAM-13 scores) mediated the relationship between health coaching and self-management outcomes. Statistical significance was set at $p < 0.05$ for all analyses, and results were reported with corresponding p-values, confidence intervals, and effect sizes to enhance interpretability and relevance for clinical practice.

Ethical Considerations

The study received ethical approval from King Saud University's Institutional Review Board (IRB) under reference number 24–962, obtained on 1 September 2024. This study complies with the principles outlined in the Declaration of Helsinki. All participants were informed of the study's purpose, methods, and voluntary nature, and informed consent was obtained before participation. Participants were assured of the confidentiality of their responses, with all data anonymized and securely stored according to ethical guidelines.

Results

Among the 200 participants (Table 1), the mean age was 68.5 years (SD = 6.3), with 35% (n = 70) between 60–65 years, 32.5% (n = 65) between 66–70 years, 22.5% (n = 45) between 71–75 years, and 10% (n = 20) older than 75 years. Females constituted 55% of the sample (n = 110), while males made up the remaining 45% (n = 90). The distribution of education levels showed that 40% (n = 80) completed high school, 35% (n = 70) had less than a high school education, and 25% (n = 50) held higher education degrees. Notably, 62% of participants (n = 124) reported having managed their chronic illness for over five years. The most common conditions were hypertension (34%, n = 68) and diabetes (29%, n = 58), with smaller proportions reporting cardiovascular (15%, n = 30) and respiratory diseases (10%, n = 20). This demographic and health profile underscores the

Table 1 Sociodemographic and Health Characteristics of Participants

Characteristic	N (%)
Age (years)	
60–65	70 (35.0)
66–70	65 (32.5)
71–75	45 (22.5)
>75	20 (10.0)
Gender	
Male	90 (45.0)
Female	110 (55.0)
Education Level	
Less than high school	70 (35.0)
High school	80 (40.0)
Higher education	50 (25.0)
Chronic Illness Duration	
<5 years	76 (38.0)
≥5 years	124 (62.0)
Type of Chronic Illness	
Hypertension	68 (34.0)
Diabetes	58 (29.0)
Cardiovascular disease	30 (15.0)
Respiratory disease	20 (10.0)
Other	24 (12.0)

relevance of tailored coaching strategies, as varying ages and educational backgrounds can affect participants' understanding and engagement in self-management behaviours.

Self-management behaviors (Table 2) varied significantly among participants. Medication adherence was notably high, with a mean score of 4.1 (SD = 0.8) on a scale of 1 to 5, and 78% of participants (n = 156) reporting high engagement (score ≥4). Dietary modification was also fairly consistent, with a mean score of 3.8 (SD = 0.9), and 68.5% (n = 137) reporting high engagement. However, physical activity and symptom monitoring were lower, with mean scores of 3.2 (SD = 1.1) and 2.9 (SD = 1.0), respectively. Only 45.5% (n = 91) reported high engagement in physical activity, and even fewer, 39% (n = 78), reported regularly monitoring their symptoms. Regular check-ups with a doctor had a mean score of 3.5 (SD = 1.0), and blood pressure and blood sugar monitoring, relevant for many participants, scored 3.3 (SD = 1.2) and 3.7 (SD = 1.0), respectively. These results highlight a clear gap in engagement with physical activity and symptom monitoring, areas where health coaching could provide targeted support.

Patient activation levels (Table 3), measured by the PAM-13, showed variability across participants. Only 20% (n = 40) of participants reached the highest activation level (Level 4), indicating full confidence in managing their health, while 25% (n = 50) scored in Level 3, reflecting active engagement but with room for improvement. The majority, 38%

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Table 2 Self-Management Behavior Scores

Self-Management Domain	Mean Score (SD)	Range	% Reporting High Engagement (Score ≥4)
Medication adherence	4.1 (0.8)	1–5	78.0% (n = 156)
Dietary modification	3.8 (0.9)	1–5	68.5% (n = 137)
Physical activity	3.2 (1.1)	1–5	45.5% (n = 91)
Symptom monitoring	2.9 (1.0)	1–5	39.0% (n = 78)
Regular check-ups with doctor	3.5 (1.0)	1–5	56.5% (n = 113)
Blood pressure monitoring	3.3 (1.2)	1–5	48.0% (n = 96)
Blood sugar monitoring (if applicable)	3.7 (1.0)	1–5	65.0% (n = 130)

Table 3 Patient Activation Levels (PAM-13)

Patient Activation Level	Definition	N (%)
Level 1 (Low)	Minimal activation	34 (17.0)
Level 2 (Moderate)	Beginning to engage	76 (38.0)
Level 3 (High)	Active in self-management	50 (25.0)
Level 4 (Very High)	Fully confident in self-care	40 (20.0)

(n = 76), scored in Level 2, signifying only moderate activation, and 17% (n = 34) remained in Level 1, indicating minimal confidence and knowledge for self-management. These findings highlight that a substantial portion of participants would benefit from further support in building their self-management confidence and capabilities.

Perceptions of health coaching were generally positive (Table 4), with 85% (n = 170) of participants reporting satisfaction in goal setting, reflected by a high mean score of 4.3 (SD = 0.6). Motivation and accountability scored a mean of 4.0 (SD = 0.7), with 75.5% (n = 151) of participants expressing satisfaction. Support in creating self-care plans scored a mean of 3.8 (SD = 0.8), with 72% (n = 144) expressing high satisfaction. Communication and responsiveness scored 4.1 (SD = 0.7), with 80% (n = 160) indicating positive experiences. Overall, the perceived impact on self-management had a mean score of 3.9 (SD = 0.8), showing that 70% (n = 140) found the coaching beneficial for managing their condition.

Table 4 Health Coaching Perception Scores

Coaching Element	Mean Score (SD)	% Reporting High Satisfaction (Score ≥4)
Goal-setting	4.3 (0.6)	85.0% (n = 170)
Motivation and accountability	4.0 (0.7)	75.5% (n = 151)
Support in creating self-care plans	3.8 (0.8)	72.0% (n = 144)
Communication and responsiveness	4.1 (0.7)	80.0% (n = 160)
Perceived impact on self-management	3.9 (0.8)	70.0% (n = 140)
Overall satisfaction with coaching	4.2 (0.6)	82.0% (n = 164)

Table 5 Regression Analysis of Health Coaching on Self-Management Behaviors

Variable	Unstandardized Coefficient (B)	Standardized Coefficient (β)	SE	p-value
Health Coaching Perception	0.52	0.42	0.07	< 0.001
Age	−0.05	−0.12	0.03	0.23
Gender	0.04	0.10	0.05	0.28
Education Level	0.10	0.18	0.04	0.04
Type of Chronic Illness	−0.08	−0.15	0.06	0.15

Table 6 Mediation Analysis of Patient Activation in the Relationship Between Health Coaching and Self-Management

Pathway	Effect Size (Coefficient)	SE	95% CI	p-value
Direct effect (Health Coaching → Self-Management)	0.30	0.08	0.15 to 0.45	< 0.01
Indirect effect (via Patient Activation)	0.22	0.07	0.10 to 0.34	< 0.01
Total effect	0.52	0.06	0.40 to 0.64	< 0.001

Multiple regression analysis (Table 5) indicated that perceptions of health coaching significantly predicted self-management behaviors ($\beta = 0.42$, $p < 0.001$). Specifically, for each unit increase in health coaching perception, there was a corresponding 0.52 increase in self-management behavior score ($B = 0.52$). Education level also showed a significant association ($\beta = 0.18$, $p = 0.04$), suggesting that participants with higher education had marginally better self-management. Age and gender were not significant predictors.

Mediation analysis (Table 6 and Figure 1) revealed that patient activation significantly mediated the relationship between health coaching and self-management behaviors. The indirect effect coefficient was 0.22 ($p < 0.01$), and the direct effect of health coaching on self-management remained significant (0.30, $p < 0.01$), resulting in a total effect of

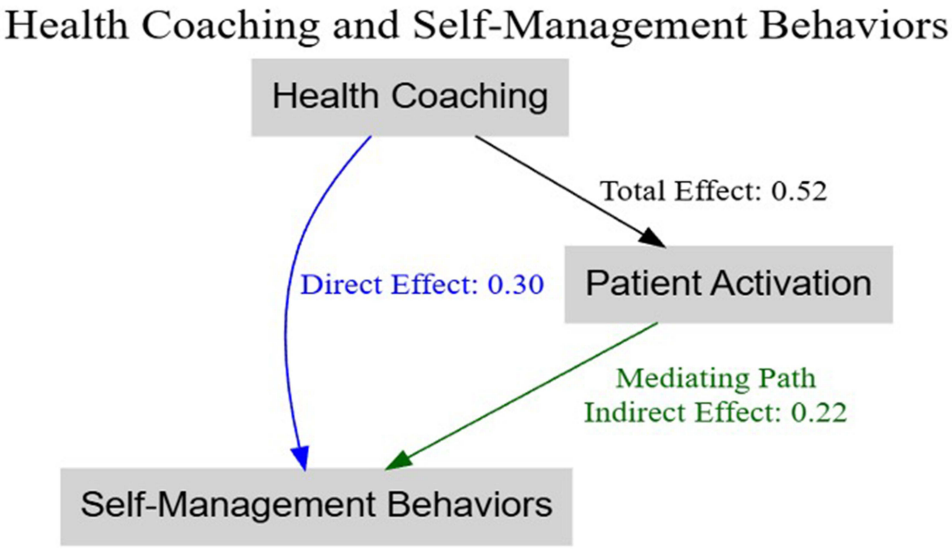

Figure 1 The path analysis model.

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0.52 ($p < 0.001$). This suggests that health coaching not only directly enhances self-management but also promotes confidence and activation, which further supports self-management improvements.

Discussion

The present study explored the impact of community health coaching on self-management behaviors among older adults with chronic illnesses, with a specific focus on the mediating role of patient activation. Findings indicate that health coaching is significantly associated with improved self-management behaviors, a relationship partially mediated by patient activation. These results support the growing body of evidence highlighting health coaching as a valuable strategy for enhancing self-management in populations facing chronic health conditions, particularly in an aging cohort.[31,32]

The primary finding—that health coaching directly influences self-management behaviors—aligns with previous studies showing that coaching interventions can lead to significant improvements in health behaviors, such as medication adherence, physical activity, and dietary modification.[33] This effect can be attributed to the personalized and supportive nature of health coaching, which emphasizes goal-setting, motivation, and accountability, thereby addressing barriers that commonly hinder self-management.[34] In this study, high satisfaction with coaching elements, particularly goal-setting and motivation, suggests that these features are integral to promoting behavior change. Previous research has shown that goal-setting strategies empower patients to break down health objectives into manageable tasks, a technique that is especially effective in older populations who may struggle with the complexities of chronic disease management.[35,36]

The mediating role of patient activation provides further insight into the mechanisms by which health coaching affects self-management. Activation levels, which indicate a patient's confidence and willingness to manage their own health, are a known predictor of positive health outcomes.[37] Higher patient activation has been consistently linked with increased engagement in self-management behaviors, which includes not only adherence to treatment but also proactive health behaviors like regular monitoring and preventive care.[38] Our study supports these findings by demonstrating that patient activation partially mediates the relationship between health coaching and self-management, suggesting that coaching indirectly facilitates self-management by boosting patients' confidence in their self-care capabilities. This is consistent with the self-efficacy theory, which posits that individuals who feel competent in managing their health are more likely to engage in health-promoting behaviors.[39]

In comparing these results with other studies, our findings on patient activation resonate with research,[40] which found that health coaching effectively enhances patient activation across different chronic illness groups. Similar studies have demonstrated that as patient activation levels rise, so does the likelihood of patients adopting healthier behaviors and adhering to medical recommendations.[41,42] Specifically, our study found that nearly half of the participants reached higher levels of activation (Levels 3 and 4), suggesting that coaching interventions can effectively elevate confidence and self-management abilities, even in populations that traditionally face barriers to activation, such as older adults with multiple chronic conditions.[43]

The specific self-management behaviors analyzed in this study—medication adherence, dietary modification, physical activity, and symptom monitoring—reflect a range of actions critical to managing chronic illnesses. Medication adherence and dietary modifications had the highest engagement rates, with 78% and 68.5% of participants, respectively, reporting consistent adherence. This is similar to findings,[44] which indicated that coaching interventions improved medication adherence among hypertensive and diabetic patients by over 20% compared to standard care. The relatively high adherence rates in our sample suggest that health coaching can effectively address practical barriers, such as forgetfulness and confusion about medication schedules, that commonly impact older adults.[45,46]

The lower engagement rates in physical activity and symptom monitoring, however, point to areas where further intervention may be needed. Only 45.5% of participants reported consistent physical activity, and symptom monitoring engagement was reported by 39% of participants. These findings are in line with research by Kayes et al,[47] which found that older adults often face unique challenges, such as mobility limitations, that inhibit regular physical activity. Additionally, symptom monitoring requires a proactive approach, which may be difficult for some older adults who experience limited health literacy or lack access to monitoring tools.[48] Health coaching could be enhanced by incorporating practical support for physical activity, such as personalized exercise plans that consider mobility limitations, and by providing easy-to-use symptom monitoring tools.[49]

The positive perception of health coaching in this study highlights the importance of providing supportive and interactive guidance in chronic illness management. Our participants reported high satisfaction with goal-setting, motivation, and accountability, with mean scores above 4 on a 5-point scale. This aligns with evidence from a systematic review by Roberts et al,[11] which concluded that health coaching is most effective when it provides a structured approach that encourages accountability and progress tracking. In Saudi Arabia, where primary care settings often have limited resources for extended patient follow-up, health coaching fills an important gap by providing ongoing, personalized support that complements routine clinical care.[50] The significant relationship between coaching satisfaction and self-management behaviors observed in this study supports the idea that coaching programs need to be patient-centered and adaptable to individual needs, which has been emphasized in prior studies.[51]

Our findings also underscore the potential of health coaching to promote self-management across diverse educational backgrounds. Although education level was a significant predictor of self-management, indicating that individuals with higher education were slightly more likely to engage in self-management, the strong association between coaching perception scores and self-management suggests that coaching can help bridge gaps in health literacy. This is particularly important in settings with varying levels of health literacy, as health coaching has been shown to improve self-management skills even among those with lower educational attainment.[52] By using accessible language and tailoring health information to the individual, health coaching can mitigate the effects of low health literacy, enabling broader engagement in self-care behaviors.[53]

Limitations

This study has several limitations that should be acknowledged. First, the cross-sectional design limits the ability to establish causal relationships between health coaching, patient activation, and self-management behaviors. Longitudinal studies are needed to confirm whether the observed associations persist over time. Second, the study relied on self-reported data, which may be influenced by recall bias or social desirability bias, potentially affecting the accuracy of participants' responses about their self-management behaviors. Additionally, the sample was limited to older adults in primary healthcare centers in Riyadh City, which may restrict the generalizability of findings to other settings, particularly rural areas or populations with different healthcare access levels. Finally, although the study used standardized, license-free tools, there may still be cultural factors unique to the Saudi population that were not fully addressed by these measures. Future research could benefit from culturally tailored tools to more precisely capture self-management and health coaching experiences in diverse populations.

Implications for Practice

The findings of this study have important implications for clinical practice and public health policy. Health coaching appears to be an effective approach for improving self-management behaviors among older adults with chronic illnesses, especially when it enhances patient activation. Integrating health coaching into primary healthcare services could be a practical and cost-effective strategy to empower patients in managing chronic conditions. Given the high satisfaction rates observed, healthcare providers should consider implementing structured coaching programs that emphasize goal-setting, motivation, and accountability, which were found to be highly valued by participants. Training healthcare staff in basic coaching techniques and encouraging regular follow-up with patients could also improve the sustainability and effectiveness of such programs. Moreover, this study highlights the need for policy support in expanding health coaching initiatives, particularly in regions where chronic disease rates are escalating due to demographic and lifestyle changes. Policymakers could look to this evidence to advocate for the inclusion of health coaching within national health frameworks as part of broader preventive health strategies. Additionally, culturally adapting coaching materials and incorporating family members in the coaching process could further enhance patient engagement and adherence in Middle Eastern contexts.

Conclusion

Our findings demonstrate that community health coaching is a valuable intervention for enhancing self-management behaviors among older adults with chronic illnesses. The study highlights the critical role of patient activation in facilitating adherence to medication, dietary modifications, and symptom monitoring. By empowering patients with knowledge, confidence, and motivation, health coaching promotes sustained engagement in self-care practices, leading to improved chronic disease outcomes.

Despite the overall positive impact, the study identified areas for further improvement, particularly in physical activity and symptom monitoring, where engagement remains suboptimal. Targeted coaching strategies that integrate behavioral techniques, goal-setting, and personalized support could further strengthen these aspects of self-management.

The integration of health coaching into primary healthcare settings has the potential to improve chronic disease management, reduce healthcare utilization, and support national health policy initiatives aimed at promoting healthier aging. Future research should explore the long-term effects of health coaching, its cost-effectiveness, and its applicability in diverse healthcare contexts, including rural and underserved populations. Additionally, incorporating objective measures of self-management behaviors could further validate the effectiveness of coaching interventions and enhance their clinical applicability.

This study contributes to the growing body of evidence advocating for patient-centered coaching models in chronic disease management. By fostering sustainable self-care behaviors, community health coaching can significantly enhance the quality of life and health outcomes for older adults, supporting the broader goal of preventive healthcare and healthy aging.

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Disclosure

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