

How to Cite:

Alrashed, A., & Mohamed, H. R. (2024). Comparative analysis of patient trust in family doctors versus community nurses in the management of chronic diseases at the primary healthcare level. *International Journal of Health Sciences*, 8(S1), 1389–1410.
<https://doi.org/10.53730/ijhs.v8nS1.15242>

Comparative analysis of patient trust in family doctors versus community nurses in the management of chronic diseases at the primary healthcare level

Anwar Alrashed MD

BSc, MBBS, KBFM, MRCGP. (Int.) MSc

Corresponding author email: alrashed@doctor.com

Hany Ramadan Mohamed

MBBS, MRCGP (Int.)

Abstract---Chronic diseases are a leading cause of morbidity and mortality, particularly in developing countries where healthcare access is limited. This systematic review investigates the levels of patient trust in family doctors and community nurses in managing chronic diseases within primary healthcare settings. We employed a comprehensive search strategy across electronic databases, yielding six relevant studies after rigorous screening. Our findings indicate that trust is a critical determinant of treatment adherence and self-management, significantly impacting patient outcomes. While patients generally express moderate trust in community nurses, they tend to have higher trust in family doctors, particularly regarding medical tasks traditionally reserved for physicians. Factors influencing trust include communication skills, perceived competence, accessibility, and continuity of care, with variations observed between the two provider types. The review also highlights the role of multimorbidity in complicating trust dynamics and emphasizes the need for targeted interventions to enhance trust levels, thereby improving adherence and overall health outcomes. Recommendations for healthcare practice and policy are provided to foster collaborative relationships between patients and providers.

Keywords---family doctors, community nurses, management of chronic diseases, primary healthcare level.

Introduction

Chronic diseases are a leading cause of morbidity and mortality worldwide, with their impact being particularly pronounced in developing countries. (1), where socioeconomic inequalities limit access to essential healthcare services (2–4). Primary healthcare (PHC) systems, which are designed to provide cost-effective and equitable care, play a critical role in managing chronic diseases by improving access and reducing the need for unnecessary hospitalizations, redundant tests, and consultations (5). However, despite these advantages, PHC systems continue to face several challenges, especially in low-resource settings, where fragmented care, inadequate funding, and shortages in healthcare personnel and supplies persist. (6–12). One of the key determinants of effective chronic disease management is the level of trust patients place in their healthcare providers. Trust is essential for ensuring adherence to treatment regimens, particularly for individuals with chronic diseases who require ongoing care and self-management (13). This study explores whether patient trust in community nurses and family physicians correlates with adherence to treatment plans in a primary healthcare context. By examining this relationship, we can better understand how trust affects patient outcomes, such as disease control, quality of life, and healthcare utilization.

The factors influencing patient trust in healthcare providers differ between family physicians and community nurses. This study will analyze these differences, focusing on factors such as communication, perceived competence, empathy, accessibility, and continuity of care. Understanding how these factors impact trust in each provider type is crucial for optimizing care delivery and improving patient outcomes. Additionally, the study investigates whether the type of provider significantly influences patient outcomes, particularly in terms of disease control and healthcare utilization, and whether provider type affects patients' quality of life. The management of chronic diseases is further complicated by multimorbidity, which involves the presence of two or more chronic conditions in a single patient. (14–16). Multimorbidity not only increases the complexity of treatment but also has the potential to impact patient trust in healthcare providers. This study will explore how multimorbidity affects patient trust in both family physicians and community nurses and the implications for managing chronic diseases in this population. Many studies have shown that multimorbidity was associated with negative outcomes. (17–25).

Lastly, this research aims to identify interventions that can enhance patient trust in both community nurses and family physicians. These interventions will be tailored to address the unique challenges faced by PHC systems, to improve patient trust, adherence, and overall health outcomes for individuals managing chronic diseases.

Methods

Data Collection:

This systematic review aimed to analyze the factors influencing patient trust in family doctors versus community nurses in the management of chronic diseases

within primary healthcare (PHC) settings. To identify relevant studies, we conducted a comprehensive search of electronic databases, including PubMed, MEDLINE, EMBASE, and CINAHL. We used a combination of keywords related to our research questions, such as "Patient trust" OR "Healthcare trust," "Family doctor" OR "Community nurse," "Primary care" OR "Primary healthcare," and "Chronic disease management." Additional relevant keywords, such as "patient adherence" and "continuity of care," were included based on preliminary searches. Our search strategy employed Boolean operators (AND, OR, NOT) to refine the search and ensure accuracy, adapting the strategy to each database's specific search interface. We limited the search to studies published within the last 10 years to capture recent trends and findings in chronic disease management. To supplement the database search, we manually reviewed the reference lists of the included studies to identify additional relevant research not captured in the initial search. We also explored databases such as the Cochrane Library and WHO Global Health Library for studies relevant to PHC systems. Duplicates were identified and removed using EndNote or similar reference management software. Titles and abstracts of retrieved citations were screened independently by two reviewers to assess initial eligibility based on predefined inclusion criteria. Full-text articles of potentially relevant studies were reviewed by both reviewers for final inclusion, with any discrepancies resolved through discussion or consultation with a third reviewer.

Study Selection

Inclusion Criteria:

1. Primary Care Settings: Studies had to focus on primary care settings where family doctors or community nurses managed chronic diseases.
2. Patient Trust: Studies had to measure patient trust in healthcare providers, specifically comparing family doctors and community nurses.
3. Chronic Disease Management: The study had to address chronic disease management in a PHC setting.
4. Peer-Reviewed Publications: Only studies published in peer-reviewed journals were included to ensure quality and reliability.
5. Quantitative and/or Qualitative Data: The study had to provide either numerical data on trust levels or qualitative data related to factors influencing trust.

Exclusion Criteria:

1. Specialized or Tertiary Care: Studies focusing on specialized care or tertiary hospitals were excluded, as the focus was on PHC settings.
2. Non-Reporting of Patient Trust: Studies that did not measure or report patient trust were excluded.
3. Non-Relevant Population: Studies that did not focus on chronic disease management or family doctors and community nurses in PHC were excluded.
4. Non-Peer-Reviewed Publications: Studies not published in peer-reviewed journals were excluded to ensure research quality.
5. Non-Quantitative or Non-Qualitative Data: Editorials, opinion pieces, or studies that did not provide quantitative or qualitative data on trust were excluded.

Data Extraction:

Data were extracted using a standardized form, including study characteristics (author, year, setting), population details (sample size, demographics), and outcomes.

Quality Assessment:

The quality of the included randomized controlled trials (RCTs) was assessed using Cochrane's risk-of-bias tool (version 1), as detailed in Chapter 8.5 of the Cochrane Handbook of Systematic Reviews of Interventions 5.1.0. This tool evaluates domains such as sequence generation (selection bias), allocation sequence concealment (selection bias), blinding of participants and personnel (performance bias), blinding of outcome assessors (detection bias), incomplete outcome data (attrition bias), selective outcome reporting (reporting bias), and other biases, with judgments categorized as low, unclear, or high risk of bias for each domain. For cohort and case-control studies, quality was assessed using the National Heart, Lung, and Blood Institute quality assessment tools, which consist of validated questions evaluating risk of bias and confounders. Responses to these questions were categorized as "yes," "no," "not applicable," "cannot be determined," or "not reported," with each study assigned an overall quality rating of "good," "fair," or "poor."

Data Collection

The initial search across all databases yielded a total of 4,996 articles. After removing 1,509 duplicates, the titles and abstracts of the remaining 3,487 articles were screened. Out of these, 3,435 articles were excluded because they did not meet the inclusion criteria. The remaining 52 articles were subjected to full-text screening, during which 37 were further excluded. Consequently, 6 articles were deemed eligible and included in the systematic review. The study selection process is illustrated in the PRISMA flow diagram shown in **Figure 1**. This comprehensive search and screening process ensured that only relevant and high-quality studies were included in the review, providing a robust basis for analyzing the effectiveness of the interventions under investigation.

Quality Assessment of the Included Studies

The overall quality of the included randomized controlled trials (RCTs) was assessed as high using the Cochrane risk-of-bias tool. For observational cohort studies, as evaluated by the NIH quality assessment tool, only one study was rated as good, while the remaining seven studies were deemed to have fair quality. Additionally, one case-control study was classified as fair quality according to the NIH quality assessment tool for case-control studies.

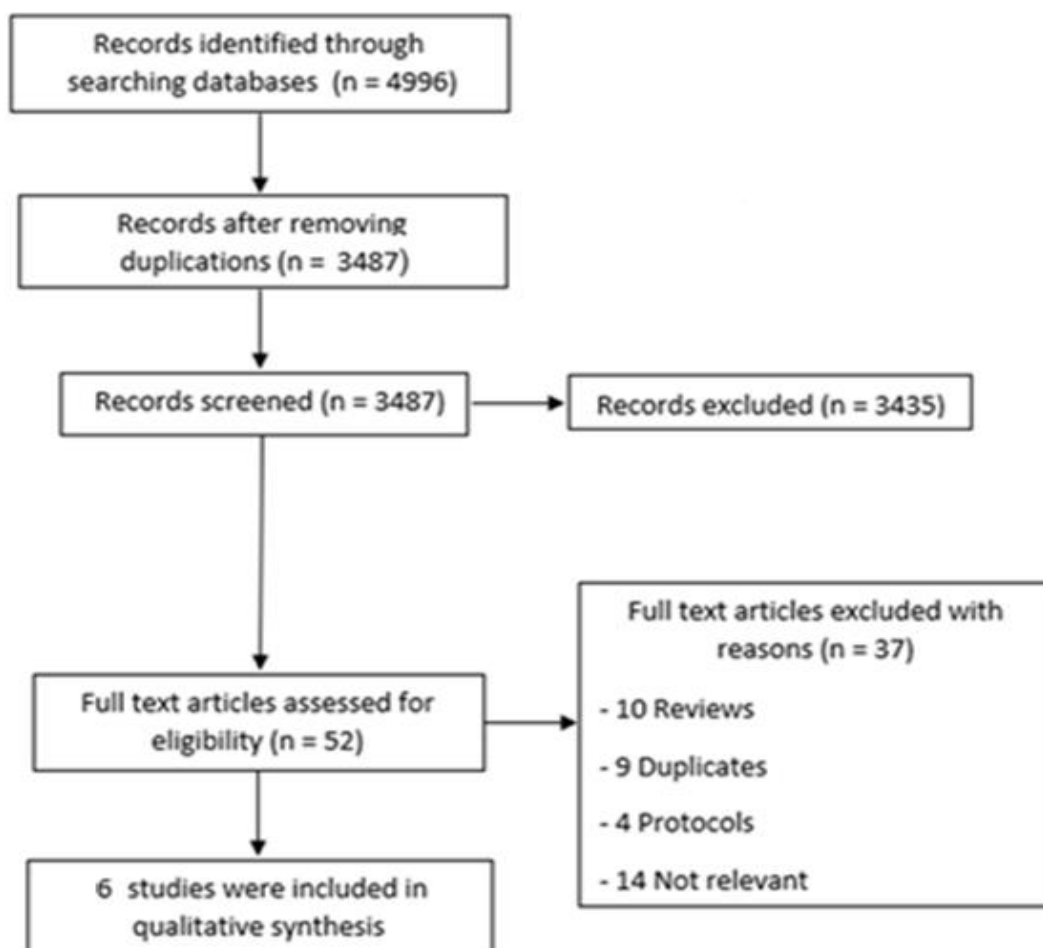


Figure 1. PRISMA flow diagram PRISMA: Preferred reporting items for systematic reviews and meta-analyses

Qualitative assessment

Marcus Heumann et al. (26) This integrative review highlights the complex dynamics between nurse intentions and patient autonomy. While nurses aim to empower patients, they often struggle with balancing support and the risk of overwhelming them, indicating a need for training to foster genuine participation.

Oliveira et al. (27) This study uncovers both strengths and weaknesses in chronic disease management practices in Brazil. The strengths, such as integrated teamwork, contrast sharply with systemic issues like high patient loads, underscoring the need for policy changes to improve care delivery.

Xinru Li et al. (28) This study emphasizes the critical role of patient trust in mediating participation in chronic disease management. The low levels of perceived participation call for interventions that not only build trust but also enhance the implementation of family doctor contract services.

Fortin et al. (29) Patients' perceptions reveal a desire for clear role definitions among healthcare providers. While they welcome nurse involvement, traditional views persist, indicating a need for educational efforts to optimize team-based care.

Lukewich et al. (28) This research identifies variability in team roles across healthcare practices, highlighting the importance of clarity in nursing roles. This could enhance team dynamics and ultimately improve patient outcomes in chronic disease management.

Albarnawi et al. (30) This narrative review underscores the effectiveness of community nursing in chronic disease management. It emphasizes community engagement and self-management, suggesting that increased investment in community nursing could yield significant improvements in patient outcomes.

Results

Table. 1: Showing Study Design, Sample size, Summary, and Main findings of the included studies

Study	Study Design	Sample size	Summary	Main findings
Marcus Heumann et al.	The study design is an integrative review, as stated in the abstract and further described in the methodology section.	N/A	This paper summarises that it develops a conceptual framework to understand the role of primary healthcare nurses in shaping participation processes with patients and communities in the context of chronic diseases, and identifies conditions that enable or hinder the promotion of patient and community participation by nurses.	<ul style="list-style-type: none"> - Nurses aim to implement a lifeworld orientation and give patients a voice but struggle to balance protecting patients and allowing them more autonomy and participation. - Nurses' concerns about patients' ability to self-manage or the risk of overburdening patients can lead them to limit patient participation, even if they intend to support patients. - While nurses strive to support patient and

				community participation, their attitudes and behaviours can sometimes act as barriers to participation.
Oliveira et al.	The study design is a qualitative study.	N/A	This paper summarises it analyzes the perspectives of physicians and nurses on chronic disease care practices in Primary Health Care in Brazil, identifying strengths and weaknesses across organizational, technical care, and biopsychosocial dimensions.	- The main findings of this study were that chronic disease care in Primary Health Care in Brazil had both strengths and weaknesses. Strengths included diversified access strategies, a range of care actions and technologies, integrated teamwork, and efforts to foster patient autonomy and self-care. Weaknesses included high patient loads, challenges in following up with all patients, high turnover of support teams, poor integration between primary care and other levels of care, difficulties in intersectoral collaboration, and lack of family participation in care.

Xinru Li et al.	The study design is a cross-sectional survey.	847 patients	The summary of this paper is that it investigates the perceived participation of patients with chronic diseases in primary healthcare in China, the impact of family doctor (FD) contract services on patient participation, and the mediating role of patient trust between FD contract services and patient participation.	<ul style="list-style-type: none"> - The perceived participation of patients with chronic diseases in primary healthcare was at a low level. - FD contract services, directly and indirectly, influenced patients' perceived participation, with patient trust mediating the relationship. - Implementing the FD contract service policy may be a facilitator of patient trust, which in turn increases patient participation in primary healthcare.
Fortin et al.	The study design is a qualitative descriptive clinical study using semi-structured interviews to explore the perceptions and expectations of patients with multimorbidity regarding the presence of nurses in primary care practices.	The sample size for this study was 18 participants.	Patients with multimorbidity are generally receptive to the involvement of nurses in primary care practices, but they expect clear definitions of the roles and responsibilities of doctors and nurses, as well as good communication and information sharing between the two professions.	<ul style="list-style-type: none"> - Patients with multimorbidity were open to the participation of nurses in primary care practices and expected greater accessibility to care for themselves and new patients. - However, many patients held the traditional view of the nurse's role as an assistant to the doctor and were concerned about the issue of

				shared roles between nurses and doctors. - Patients expected the participation of nurses in primary care practices to be established using clear definitions of professional roles and fields of practice.
Lukewich et al.	The study design was a cross-sectional survey of primary healthcare practices in eastern Ontario.	The sample size of the study was 26 practice locations	The summary of this paper is that it describes the organizational attributes of primary healthcare (PHC) practices in eastern Ontario, focusing on team composition, nursing roles, and strategies for chronic disease management, and finds that there are differences in these attributes between family health teams (FHTs) and community health centers (CHCs).	- CHC practices had a greater proportion of non-physician providers compared to FHT practices. - Nurse practitioners and registered nurses were the most common non-physician healthcare providers. - There was substantial overlap in the roles performed by nurses of different regulatory designations (NPs, RNs, RPNs).

Albarnawi et al.	Based on the information provided in the paper, the study design appears to be a narrative review or literature review, where the authors examined and synthesized existing research on community nursing interventions for chronic disease management.	N/A	The paper provides a comprehensive review of community nursing interventions for the management of chronic diseases, highlighting their effectiveness, challenges, and areas for improvement.	<ul style="list-style-type: none"> - Community nursing interventions play a key role in addressing the challenges of chronic diseases and positively impact patient outcomes and healthcare systems. - Education and self-management strategies empower individuals to take an active role in managing their health. - Community nurses' home visits to vulnerable patients have proven effective in reducing hospital readmissions and creating personalized care plans.
-------------------------	---	-----	---	--

Table. 2: Shows methodology, recommendation, and objective

Study	Methodology	Recommendation	Objective
Marcus Heumann et al.	The study used an integrative review methodology, including a systematic literature search, screening and selection of relevant studies, quality assessment, and thematic synthesis of the findings.	1) Use the conceptual framework developed in the paper to guide future research and policies related to patient and community participation in primary healthcare nursing. 2) Recognize the complexity and varied nature of participation processes when developing supportive	The objective of this study is to develop a conceptual framework that provides information on the role of primary healthcare nurses in shaping participation processes with patients and

		strategies. 3) Address nurses' lack of theoretical knowledge about supporting patient and community participation through their education and training.	communities in the context of chronic diseases, and to identify conditions that enable or hinder the promotion of patient and community participation by nurses.
Oliveira et al.	The study used a qualitative methodology, conducting semi-structured interviews with 5 physicians and 18 nurses in Vitória da Conquista, Brazil. Participants were selected through purposive sampling based on their comprehensive and diverse practice in chronic disease care in primary health care. Data was collected over 4 months in 2018-2019, with interviews audio recorded and transcribed. The analysis followed a deductive thematic content approach, involving reading of transcripts, coding, classification, and interpretation based on an analytical matrix.	1) Conduct a multidimensional evaluation of chronic disease care practices in primary care to identify strengths and weaknesses across organizational, technical, and biopsychosocial dimensions. 2) Use the findings to guide internal changes to the primary care team's work processes and inform the development of health policies that provide technical, political, logistical, and financial support to primary care. 3) Conduct further research on chronic disease care practices, including perspectives from other stakeholders (community health workers, patients, managers) and in different contexts, as well as evaluating the impact on clinical outcomes.	The objective of this study was to analyze the perspectives of physicians and nurses performing care for patients with chronic diseases in Primary Health Care in a Brazilian city.

Xinru Li et al.	<p>- A cross-sectional survey was conducted from August to October 2019 in Jilin Province, China. - A multistage stratified sampling approach was used to select 16 primary healthcare facilities as study sites. - Convenience sampling was used to select 847 patients with chronic diseases from the 16 facilities as participants.</p>	<p>1. Primary healthcare institutions should strengthen FD teams, improve service quality and public health services to enhance patient participation. 2. Increase patient awareness and willingness to participate in FD contract services to build patient trust and utilization of primary care. 3. Improve physician competence, service attitudes, and foster trust and respect in patient-provider relationships to increase patient participation in primary care.</p>	<p>The objective of this study is to investigate the current status of the perceived participation of patients with chronic diseases in Chinese primary health care settings, the effect of family doctor (FD) contract services on patients' perceived participation, and the mediating role of patient trust in the relationship between FD contract services and patients' perceived participation.</p>
Fortin et al.	<p>- Qualitative descriptive clinical study using semi-structured interviews - Participants were primary care patients with multimorbidity (5 or more chronic conditions) - Participants were recruited from different primary care settings to capture a range of experiences with nurses - Interviews were audio-recorded, transcribed, and analyzed using thematic analysis</p>	<p>1. Clearly define the roles and fields of practice for doctors and nurses in primary care settings. 2. Demonstrate and acknowledge the competency of nurses to build trust with patients. 3. Improve communication and information sharing between doctors and nurses to ensure seamless care.</p>	<p>The objective of this study is to explore the perceptions and expectations of patients with multimorbidity regarding the presence of nurses in primary care practices.</p>

Lukewich et al.	<p>- Cross-sectional survey design - All CPCSSN-affiliated practices in eastern Ontario were invited to participate (n=34) - A modified version of the "Measuring Organizational Attributes of Primary Health Care Survey" developed by CIHI was used - Data was collected from June-November 2014 from practice leaders (e.g., administrative leads, executive directors) - Descriptive statistics were used to analyze the data at the practice location level</p>	<p>1) There is a need to better understand and optimize the roles of different types of nurses (NPs, RNs, RPNs) within primary care in order to support high-quality care. 2) Future research should examine the relationships between team composition, chronic disease management services, nursing roles, and patient health outcomes in primary care, in order to support the development of high-functioning healthcare teams.</p>	<p>1) To determine team composition within team-based PHC practices in eastern Ontario 2) To describe nursing roles within PHC teams 3) To determine the range of chronic disease management services available within practices 4) To examine the feasibility of using the 'Measuring Organizational Attributes of Primary Health Care Survey' to gather organizational-level data</p>
Albarnawi et al.	<p>- Conducted a literature review of articles from JSTOR, PubMed, and ProQuest databases - Focused on topics related to "community nursing", "chronic disease management", "patient care", and "health outcomes" - Included studies published in English from 2008 onwards - Aimed to provide an overview of community nursing interventions and their approaches for managing chronic diseases in different community settings</p>	<p>1. Conduct further research to develop strategies that can address the challenges faced by community nursing interventions and evaluate their long-term effects. 2. Ensure the seamless integration of technology, such as telehealth services, into community nursing interventions, as these approaches have shown positive outcomes for patients and healthcare systems. 3. Address the challenges of staffing shortages and the need for training in order to enhance the effectiveness of community nursing interventions.</p>	<p>The objective of the study is to review community nursing interventions dedicated to chronic disease management.</p>

Table. 3: Shows trust Levels, impact of trust, and role of healthcare provider among the studies

Study	Trust Levels	Impact of Trust	Role of Healthcare Provider
Marcus Heumann et al.	The paper identifies mutual trust between nurses and patients/communities as a crucial factor in enabling participation processes. Nurses need to develop a shared understanding of health problems and needs with patients and communities, which is supported by building mutual trust through open discussions about goals, responsibilities, and values.	The review highlights that mutual trust between nurses and patients/communities is a crucial factor in enabling participation processes. A shared understanding of health problems and needs is achieved through long-lasting, collaborative relationships where nurses gain knowledge of patients' and families' living situations, everyday lifeworlds, and health needs and resources. This shared understanding is supported by mutual trust, which is built through open communication, discussion of goals and responsibilities, and respect for each other's opinions and values.	1. Developing long-term, collaborative relationships with patients and families to gain in-depth understanding of their lifeworlds, health needs, and resources. 2. Strengthening patients' and families' ability to self-manage chronic conditions through education, instruction, and shared goal-setting. 3. Facilitating patient support groups to promote peer-to-peer learning and the development of patients' own health resources. 4. Advocating for vulnerable and chronically ill patients and communities in professional discussions to raise awareness of their needs and interests.
Oliveira et al.	N/A	N/A	1. Providing access to care through screening, triage, and listening to patient concerns. 2. Organizing interdisciplinary teamwork and care planning. 3. Utilizing clinical protocols to guide treatment. 4. Facilitating information exchange and case discussion

			within the multidisciplinary team. 5. Providing health education and promoting self-care and autonomy in patients with chronic diseases.
Xinru Li et al.	The mean trust level of patients with chronic diseases in the study was 3.39 out of 5. The paper explains that the FD contract services help build both cognitive-based trust (in the competence of the FDs) and emotional-based trust (through the connections formed) in the patients, and that this increased trust then leads to greater patient participation.	The impact of trust in this study is that patient trust mediates the relationship between FD contract services and patients' perceived participation in primary healthcare. FD contract services can directly and indirectly influence patient participation, and the indirect effect is through increasing patient trust in their healthcare providers. Greater patient trust leads to higher levels of patient participation in their own care.	1. Provide primary care services that are associated with improved health outcomes for people with chronic diseases. 2. Implement the FD contract services policy, which involves FD teams consisting of general practitioners, nurses, and public health doctors providing personalized, comprehensive, and continuous care to patients with chronic diseases. 3. Enhance doctor-patient communication, develop personalized health management plans, improve patient health knowledge, and offer emotional support, all of which can increase patient participation in chronic disease management.
Fortin et al.	Based on the quotes, the overall trust levels of patients with multimorbidity regarding the involvement of nurses in primary care practices are moderate. Patients generally trust the	The impact of trust is a key factor in determining patients' receptiveness to the involvement of nurses in primary care practices. Patients need to trust the nurse's competence, ability to stay up-to-	1. Doctors are the primary care providers who patients expect to validate the nurse's decisions and provide overall medical care. 2. Nurses are expected to assist the doctor in various duties, but also to have a broader

	competence and qualifications of nurses, but they are hesitant about nurses performing certain tasks that were traditionally done by doctors, especially for their own particular situations. Patients want clear definitions of the roles and responsibilities of nurses and doctors to feel fully confident in the care they receive.	date, and ability to perform certain medical tasks in collaboration with the doctor. Without this trust, patients may feel hesitant or insecure about the nurse's involvement in their care.	role in providing information, adjusting medications, and following up on chronic conditions. 3. Both doctors and nurses should have clearly defined roles and responsibilities, with good communication and information sharing between them. 4. Patients want to develop a long-term relationship with the same nurse, similar to their relationship with their doctor.
Lukewich et al.	N/A	N/A	- Nurse practitioners (NPs) and registered nurses (RNs) were the most common non-physician providers, especially in community health centers (CHCs). - There was substantial overlap in the roles and activities performed by NPs and RNs, while registered practical nurses (RPNs) engaged in fewer roles compared to NPs and RNs. - A greater proportion of family health teams (FHTs) had systematic chronic disease management services for certain conditions compared to CHC practices.
Albarnawi et al.	N/A	N/A	Based on the information provided in the paper, the role of healthcare

			<p>providers in the management of chronic diseases appears to be primarily in collaboration with community nurses. Community nurses work closely with healthcare providers to ensure proper medication management, facilitate communication and continuity of care, and prepare patients for emergencies. However, the paper does not provide a comprehensive or detailed description of the specific roles and responsibilities of healthcare providers beyond their interactions with community nurses.</p>
--	--	--	---

Table 4: Comparing Trust levels between doctors and nurses

Study	Compare Trust Levels
Marcus Heumann et al.	The paper highlights that building mutual trust between nurses and patients/communities is a key factor in enabling participation processes. Nurses need to establish collaborative relationships, be open to patient/community perspectives, and gain acceptance as partners in the participation process in order to foster meaningful participation.
Oliveira et al.	N/A
Xinru Li et al.	N/A
Fortin et al.	The paper suggests that while patients generally trust the competence of nurses, they have higher trust levels in doctors, especially when it comes to certain medical tasks like prescribing medication or making treatment decisions. Patients seem to view the doctor as the primary care provider and are hesitant to have nurses take on certain responsibilities traditionally handled by doctors, even in a collaborative care model.

Lukewich et al.	N/A
Albarnawi et al.	N/A

Summary

1. **Trust Levels:** Mutual trust is highlighted as essential for enabling patient participation. While patients generally exhibit trust in nurses, this trust is notably higher for family doctors, particularly regarding medical tasks traditionally performed by doctors. This suggests a hierarchical view of trust, where the doctor is seen as the primary provider, leading to hesitancy in entrusting nurses with specific responsibilities.
2. **Factors Influencing Trust:** Various factors were identified as influential in shaping patient trust:
 - **Communication Skills:** Open communication fosters mutual understanding and trust, particularly in nurse-patient relationships.
 - **Perceived Competence:** Trust levels are linked to patients' perceptions of the competence of their healthcare providers. While nurses are trusted for their qualifications, patients often prefer doctors for critical decisions.
 - **Accessibility and Continuity of Care:** Patients value accessibility to their healthcare providers, which positively influences trust.
 - **Empathy:** The ability of healthcare providers to empathize with patients plays a crucial role in building trust.
3. **Impact of Trust on Adherence:** The findings indicate that higher levels of patient trust are associated with better adherence to treatment plans and self-management behaviors. Trust in family doctors and community nurses is crucial for encouraging patients to follow medical advice and engage in their health management.
4. **Role of Healthcare Provider Type:** The type of healthcare provider significantly influences patient trust. Family doctors tend to have higher trust levels compared to community nurses, especially for tasks such as prescribing medications and making treatment decisions. However, there is potential for community nurses to build trust through strong communication and collaborative relationships.
5. **Recommendations for Improving Trust:** Based on the results, several practical recommendations are proposed:
 - **Enhance Communication Skills:** Training programs for both family doctors and community nurses should emphasize effective communication and patient engagement.
 - **Clarify Roles and Responsibilities:** Clear definitions of the roles of family doctors and nurses can help patients feel more secure about their care.
 - **Foster Collaborative Relationships:** Encouraging collaboration between family doctors and community nurses can enhance the continuity of care and patient trust.
 - **Promote Empathy:** Healthcare providers should be trained to develop empathetic relationships with patients to improve trust and adherence.

Discussion

This study offers important new information about how much people trust community nurses versus family doctors when it comes to managing chronic illnesses in primary care settings. Effective healthcare delivery relies heavily on trust, which affects patient participation, treatment plan adherence, and overall health results. Our data show a clear discrepancy in the degree of confidence, with family physicians being seen as more reliable than community nurses overall, especially when it comes to making medical decisions and carrying out treatment duties. This dynamic emphasizes how crucial it is to comprehend patient trust-building variables and how they relate to collaborative care models. In order to better the management of chronic diseases at the primary healthcare level and foster trust, this research attempts to uncover the critical components that either promote or diminish trust in family doctors and community nurses.

Chen et al. (31) discovered that patients value doctors' kindness more than their technical proficiency, which is consistent with our findings. This suggests that primary care physicians should receive more training in medical humanities and communication techniques. The survey also found that the best indicator of patient satisfaction was patients' trust in their primary care doctors. Likewise, Baker et al. (32) found a relationship between satisfaction and seeing a regular doctor; patients who see reliable doctors report feeling the happiest. Ming et al. (33) went on to show that provider trust is positively correlated with satisfaction with the degree of primary care physician (PCP) choice, citing "enough PCP choice" as a significant predictor of trust. They pointed out that getting a second opinion could be a sign of mistrust towards the provider. Future research should examine these areas even though crucial data, such as provider trust in general and the effect of provider performance information on choice, were not available for study. The results point to the necessity of reconsidering the connections between consumer choice, trade-off behaviors in PCP selection, and the ways in which healthcare encounters impact satisfaction with PCP choice and provider trust.

This systematic review comprehensively analyzes the factors influencing patient trust in both family doctors and community nurses, employing a rigorous methodology that includes extensive database searches and quality assessments. The inclusion of diverse studies allows for a nuanced understanding of trust dynamics across different healthcare settings and populations. Additionally, the focus on chronic disease management addresses a critical area of healthcare, providing insights that can inform future interventions. The review is limited by the small number of studies meeting inclusion criteria, which may affect the generalizability of the findings. Variability in study designs, populations, and measurement tools for trust may introduce heterogeneity that complicates comparative analysis. Furthermore, some studies did not explicitly report trust levels, necessitating reliance on qualitative interpretations. Future research should aim for larger sample sizes and standardized measurement approaches to strengthen the evidence base.

Conclusion

This study highlights the importance of patient trust in managing chronic diseases, with family doctors generally seen as more trustworthy than community nurses. Trust influences treatment adherence, necessitating strategies to enhance it in both providers. Improving communication and collaboration is essential for better patient outcomes.

References

1. Kognisi PK, Risiko P, Jenis DAN, Bidori F, Puspitowati LI dan I, Wijaya IGB, et al. World Health Statistics: Monitoring Health for the SGD 2021. Industry and Higher Education. 2021.
2. Rasella D, Hone T, De Souza LE, Tasca R, Basu S, Millett C. Mortality associated with alternative primary healthcare policies: A nationwide microsimulation modelling study in Brazil. BMC Med. 2019;
3. Rasella D, Basu S, Hone T, Paes-Sousa R, Ocké-Reis CO, Millett C. Child morbidity and mortality associated with alternative policy responses to the economic crisis in Brazil: A nationwide microsimulation study. PLoS Med. 2018;
4. Nikfarjam M, Niumsawatt V, Sethu A, Fink MA, Muralidharan V, Starkey G, et al. Outcomes of contemporary management of gangrenous and non-gangrenous acute cholecystitis. HPB. 2011;
5. Tasca R, Massuda A, Carvalho WM, Buchweitz C, Harzheim E. Recomendações para o fortalecimento da atenção primária à saúde no Brasil. Rev Panam Salud Pública. 2020;
6. Reynolds R, Dennis S, Hasan I, Slewa J, Chen W, Tian D, et al. A systematic review of chronic disease management interventions in primary care. BMC Family Practice. 2018.
7. Zotti MGT, Osti OL, Zhou Q, Zhou F, Wang L, Liu K, et al. Practice Guidelines For Spinal Diagnostic And Treatment Procedures. Spine (Phila Pa 1976). 2013;
8. Santos D de S, Mishima SM, Merhy EE. Processo de trabalho na Estratégia de Saúde da Família: Potencialidades da subjetividade do cuidado para reconfiguração do modelo de atenção. Cienc e Saude Coletiva. 2018;
9. Li X, Krumholz HM, Yip W, Cheng KK, De Maeseneer J, Meng Q, et al. Quality of primary health care in China: challenges and recommendations. The Lancet. 2020.
10. Facchini LA, Tomasi E, Dilélio AS. Qualidade da Atenção Primária à Saúde no Brasil: avanços, desafios e perspectivas. Saúde em Debate. 2018;
11. Silva RLDT, Barreto M da S, Arruda GO de, Marcon SS. Avaliação da implantação do programa de assistência às pessoas com hipertensão arterial. Rev Bras Enferm. 2016;
12. Campos PB. PREVENÇÃO DA TROMBOSE VENOSA PROFUNDA NA GRAVIDEZ PELA ENFERMAGEM NA APS. In 2023.
13. Wang XM, Agius M. The role of care coordinators versus doctors in the management of chronic mental illness in the community. In: Psychiatria Danubina. 2019.
14. Fortin M, Bravo G, Hudon C, Vanasse A, Lapointe L. Prevalence of multimorbidity among adults seen in family practice. Annals of Family

- Medicine. 2005.
15. Van den Akker M, Buntinx F, Metsemakers JFM, Roos S, Knottnerus JA. Multimorbidity in general practice: Prevalence, incidence, and determinants of co-occurring chronic and recurrent diseases. *J Clin Epidemiol*. 1998;
 16. Van Den Akker M, Buntinx F, Knottnerus JA. Comorbidity or multimorbidity: What's in a name? A review of literature. *European Journal of General Practice*. 1996.
 17. Extermann M. Measurement and impact of comorbidity in older cancer patients. *Crit Rev Oncol Hematol*. 2000;
 18. Incalzi RA, Capparella O, Gemma A, Landi F, Bruno E, Di Meo F, et al. The interaction between age and comorbidity contributes to predicting the mortality of geriatric patients in the acute-care hospital. *J Intern Med*. 1997;
 19. Poses RM, McClish DK, Smith WR, Bekes C, Scott WE. Prediction of survival of critically ill patients by admission comorbidity. *J Clin Epidemiol*. 1996;
 20. West DW, Satariano WA, Ragland DR, Hiatt RA. Comorbidity and breast cancer survival: A comparison between black and white women. *Ann Epidemiol*. 1996;
 21. Librero J, Peiró S, Ordinana R. Chronic comorbidity and outcomes of hospital care: Length of stay, mortality, and readmission at 30 and 365 days. *J Clin Epidemiol*. 1999;
 22. Rochon PA, Katz JN, Morrow LA, Mcglinchey-Berroth R, Ahlquist MM, Sarkarati M, et al. Comorbid Illness is Associated with Survival and Length of Hospital Stay in Patients with Chronic Disability: A Prospective Comparison of Three Comorbidity Indices. *Med Care*. 1996;
 23. Flach AJ, Lemp MA, Shine O. Corneal melts associated with topically applied nonsteroidal anti-inflammatory drugs. *Transactions of the American Ophthalmological Society*. 2001.
 24. Wolff JL, Starfield B, Anderson G. Prevalence, expenditures, and complications of multiple chronic conditions in the elderly. *Arch Intern Med*. 2002;
 25. Rice DP, LaPlante MP. Medical expenditures for disability and disabling comorbidity. In: *American Journal of Public Health*. 1992.
 26. Heumann M, Röhsch G, Hämel K. Primary healthcare nurses' involvement in patient and community participation in the context of chronic diseases: An integrative review. *Journal of Advanced Nursing*. 2022.
 27. Nunes Oliveira C, Galvão Oliveira M, Wildes Amorim W, Nicolaevna Kochergin C, Mistro S, de Medeiros DS, et al. Physicians' and nurses' perspective on chronic disease care practices in Primary Health Care in Brazil: a qualitative study. *BMC Health Serv Res*. 2022;
 28. Lukewich J, Edge DS, Vandenkerkhof E, Williamson T, Tranmer J. Team composition and chronic disease management within primary healthcare practices in eastern Ontario: An application of the Measuring Organizational Attributes of Primary Health Care Survey. *Primary Health Care Research and Development*. 2018.
 29. Fortin M, Hudon C, Gallagher F, Ntetu AL, Maltais D, Soubhi H. Nurses joining family doctors in primary care practices: Perceptions of patients with multimorbidity. *BMC Fam Pract*. 2010;
 30. Albarnawi HM, Alroqabi SM, Ogdi WZ, Jalal AA, Agdi JZ, AL-Eid HS, et al. Community nursing interventions for chronic disease management. *Int J Community Med Public Heal*. 2023;

31. Chen W, Feng Y, Fang J, Wu J, Huang X, Wang X, et al. Effect of trust in primary care physicians on patient satisfaction: A cross-sectional study among patients with hypertension in rural China. *BMC Fam Pract*. 2020;21(1).
32. Baker R, Mainous AG, Gray DP, Love MM. Exploration of the relationship between continuity, trust in regular doctors and patient satisfaction with consultations with family doctors. *Scand J Prim Health Care*. 2003;21(1):27–32.
33. Chu-Weininger MYL, Balkrishnan R. Consumer satisfaction with primary care provider choice and associated trust. *BMC Health Serv Res*. 2006;6.