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The Role Of Multidisciplinary Team In Implementing Integrated Care Models: A Systematic Review

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Abstract

Background: The role of multidisciplinary teams (MDTs) in integrated care models has gained significant attention due to their potential to improve patient outcomes and healthcare system efficiency. Integrated care, which involves coordinated efforts from professionals across various healthcare disciplines, aims to provide comprehensive care, especially for patients with complex needs. However, challenges related to communication, technology integration, and team dynamics persist, particularly in resource-constrained settings.
Aim: This systematic review aims to explore the role of multidisciplinary teams in the implementation of integrated care models, focusing on how these teams contribute to improving patient outcomes, enhancing healthcare delivery, and increasing system efficiency.
Method: A comprehensive literature search was conducted across five academic databases—PubMed, Scopus, Web of Science, CINAHL, and Google Scholar—to identify peer-reviewed empirical studies published between 2021 and 2025. Studies that examined integrated care models involving MDTs were included. Data from 15 high-quality studies were synthesized to identify key themes, trends, and findings related to MDT effectiveness in integrated care.
Results: The findings revealed that MDTs significantly improve patient outcomes, especially in chronic disease management, mental health, and community-based care. Multidisciplinary teams were associated with better care coordination, enhanced patient satisfaction, and cost savings. However, barriers such as communication challenges, digital health adoption, and lack of infrastructure were identified as critical factors hindering the full implementation of these models.
Conclusion: Multidisciplinary teams play a crucial role in the success of integrated care models. While their integration leads to improved healthcare outcomes, addressing communication barriers and enhancing digital health infrastructure are essential for maximizing their effectiveness.

Keywords: Multidisciplinary teams, integrated care, patient outcomes, healthcare delivery, system efficiency, communication, digital health, chronic disease management.

Introduction

The integration of multidisciplinary care teams in healthcare systems has emerged as a vital strategy for enhancing the care delivery system, especially for complex and chronic patients. Integrated care models with a focus on collaboration between healthcare professionals from different disciplines have demonstrated promise as models for improving patient outcomes and service efficiency (Bang et al., 2024; Guo et al., 2024; O'Callaghan et al., 2025). These models attempt to establish a more holistic approach towards healthcare by ensuring that patients receive a comprehensive care that is tailored to their needs; this is often provided by a team of healthcare providers from various fields such as medicine, nursing, mental health as well as social work (Ye & Jiang, 2022; Colligan, 2025; Herranz et al., 2024). Despite the potential benefits, the integration of multidisciplinary teams is also a complex process, with various challenges to overcome, such as coordinating providers, communication barriers, and efficient use of technology (Paffett et al., 2024; Ye & Jiang, 2022; Pacho et al., 2025).

While integrated care programs have been introduced worldwide, especially in the management of chronic diseases, such as diabetes and hypertension, the results have been mixed. Some programs have had success in improving the outcomes of patients, while others have experienced significant challenges in resource allocation, staff training, and long-term integration (Bang et al., 2024; Paffett et al., 2024; Pacho et al., 2025). The success of these programs is often affected by the degree of coordination between the various professionals and the support in the healthcare system for interprofessional collaboration (Guo et al., 2024; O'Callaghan et al., 2025; Wu et al., 2023). Furthermore, technological advancements, including telemedicine and electronic health records (EHRs), have been increasingly integrated into these models to enhance care delivery and cut healthcare costs. However, the efficacy of these technological solutions in replacing face-to-face multidisciplinary care is still an ongoing research topic (Wu et al., 2023; Ye & Jiang, 2022; Herranz et al., 2024).

Despite the positive results reported in some integrated care programmes, there are still significant obstacles that need to be overcome, especially when it comes to embracing digital health tools and healthcare professionals adopting these technologies. Studies have suggested that while digital tools, including telemedicine, mobile health applications, and digital prescriptions, show promise in aiding the access to care and reducing unnecessary hospital visits, the implementation of these technologies into current healthcare infrastructures is often hampered by factors such as poor digital literacy, unstable Internet connections, and cultural resistance among healthcare workers and patients alike (Ye & Jiang, 2022; Paffett et al., 2024; Herranz et al., 2024). Additionally, there is a growing recognition that integrating care is not just about technological solutions, but also about the need to make systemic changes in the way that healthcare providers work together, communicate, and coordinate patient care in different settings (Guo et al., 2024; Wu et al., 2023; Pacho et al., 2025). These challenges demonstrate the importance of a strategic approach to the implementation of integrated care models, and ensuring that both the technical and human factors are addressed to deliver sustainable and good quality care delivery.

As healthcare systems are continually evolving and emphasizing the need for integrated care, there is a need to consider the factors that support or impede its successful implementation. Understanding the interplay between technology, professional collaboration, and healthcare policy will be crucial in understanding how integrated care models can be optimized for the needs of diverse patient populations (Ye & Jiang, 2022; Paffett et al., 2024; Colligan, 2025). While extant studies have documented the positive influence of integrated care on patient outcomes, there remains little understanding of the interplay of the various constituents of these models, including team dynamics, digital health technologies, and community-based care in influencing overall healthcare delivery (Wu et al., 2023; Pacho et al., 2025; Terry et al., 2025).

This review seeks to discuss the role of the multidisciplinary team in integrated care model, the difficulties, benefits, and potential for these teams to revolutionize healthcare systems worldwide.

Problem Statement

Despite the growing appreciation of the importance of multidisciplinary teams (MDTs) in integrated care models, their implementation is inconsistent and faces many challenges. While integrated care has been proven to improve patient outcomes by offering comprehensive and coordinated care, the role of MDTs in enabling these improvements is poorly understood. In particular, the challenges of bringing together many different professionals from many disciplines, such as healthcare providers, social workers, and community support teams, have not been adequately explored. The challenges associated with communication, coordination and professional boundaries, prevent the full potential of MDTs, in particular for the medical care in settings where resources are limited, and healthcare systems are under pressure. Furthermore, although technology has been part of supporting integrated care, the question of whether it can fully replace the nuanced care offered by MDTs remains an open question. These gaps in understanding require a deeper exploration into the role of multidisciplinary teams within integrated care models and the benefits that they bring to patient care and system efficiency.

Significance of the Study

This research is important, because it seeks to fill the gap in the literature about the specific role of multidisciplinary in integrated care models. By honing in on the collaborative efforts of healthcare professionals working in different areas, the study aims to offer information about how these teams can be more structured, coordinated, and used to enhance the patient outcome, especially for those suffering from chronic or complicated conditions. Understanding the dynamics of MDTs in integrated care will contribute to improved policy-making, strategies in providing healthcare, and training programs for healthcare professionals. In addition, as healthcare systems across the globe shift towards more patient-centered care and value-based models of care, the research will have evidence-based recommendations on how to optimize multidisciplinary collaboration to achieve the goals of integrated care, especially in resource-constrained settings. The results of this study will not only help healthcare providers and policymakers, but will also help improve the understanding of how to effectively implement integrated care models that meet the diverse needs of patients.

Aim of the Study

The aim of this study is to examine the role of multidisciplinary teams in the implementation of integrated care models, with a particular focus on the ways in which these teams contribute to the improvement of healthcare delivery, patient outcomes, and system efficiency. This study will examine the existing literature pertaining to integrated care models that include multidisciplinary teams and how effectively they work in different healthcare settings, such as primary care, hospital settings, and community-based programs. Specifically, the purposes of the study are to:

1. Evaluate the effects of MDTs upon the care and outcomes of patients within integrated model of care.
2. Identify important challenges and barriers toward the successful integration of MDTs in healthcare systems.
3. Discuss the role that technology has played in supporting MDTs and integrated care, the role of digital health tools.
4. Provide recommendations on how to strengthen MDT collaboration in order to deliver integrated care in diverse healthcare settings.

Methodology

Study Design

This study used a systematic review design to evaluate the role of multidisciplinary teams in implementing integrated care models. The review was conducted using a comprehensive and structured approach, and only the most relevant and high-quality studies were included. The goal was to synthesize the available evidence on the influence of integrated care models that involve multidisciplinary teams on patient outcomes, healthcare delivery and efficiency of systems. The review followed the principles of the PRISMA guidelines to ensure transparency and rigor in reporting and was limited to peer-reviewed empirical studies published between 2021 and 2025. The data extraction and synthesis were carried out by independent reviewers to reduce bias and ensure reliability.

Search Strategy

The search strategy was created to identify relevant studies from a variety of academic databases. The main databases searched were PubMed, Scopus, Web of Science, CINAHL and Google Scholar. These databases were chosen on the basis of their extensive coverage of healthcare, integrated care and multidisciplinary team research. The search was performed with a wide range of keywords and phrases concerning multidisciplinary teams, integrated care and healthcare outcomes so that all the relevant articles published between 2021 and 2025 were captured.

The inclusion of more than one database ensured a wide-reaching search and helped to minimize the risk of missing relevant studies. The search was specific to studies that spoke of integrated care models with multi-disciplinary teams, excluding those that did not fit the criteria of being empirical studies and those from outside the published range of 2021-2025.

Data Extraction

The data extraction process involved collecting key information from each included study to assess its relevance and quality. Information extracted included study design, setting, patient population, integrated care model type, and the roles of multidisciplinary teams. Additionally, data on outcomes related to patient care, system efficiency, and healthcare delivery were extracted. All data were independently reviewed by two researchers to ensure accuracy and consistency. Discrepancies between the reviewers were resolved through discussion.

Key data points also included any challenges or barriers identified in the implementation of multidisciplinary teams in integrated care models, such as communication issues, resource constraints, and the integration of technology. This data extraction process was standardized to facilitate comparison across studies, allowing for a robust synthesis of the evidence.

Research Question

The central research question guiding this systematic review was:

- **How do multidisciplinary teams contribute to the implementation of integrated care models in improving patient outcomes, healthcare delivery, and system efficiency from 2021 to 2025?**

This question was an attempt to delve into the specific contributions of multidisciplinary teams within integrated care models, particularly how these teams affect the improvement of care coordination, patient satisfaction, and the efficiency of healthcare systems in general.

Selection Criteria

Inclusion Criteria

The following criteria were used for selecting studies for inclusion in this systematic review:

- **Publication Date:** Studies published between 2021 - 2025.

- **Study Design:** Peer-reviewed empirical research, quantitative, qualitative, and mixed methods studies.
- **Focus:** Studies must be focused on integrated care models involving multidisciplinary teams and how they impact patient outcomes, healthcare delivery or system efficiency.
- **Setting:** Studies undertaken in healthcare settings that included a multidisciplinary team approach and included hospitals, primary care and community-based care models.
- **Language:** Only studies published in English were considered in order to ensure accessibility and consistency in the interpretation of data.

Exclusion Criteria
Studies were excluded from the review if they met any of the following criteria:

- **Publication Date:** Studies that were published before 2021
- **Study Design:** Opinion piece, editorial, conference abstract, non-peer reviewed studies.
- **Focus:** Studies that did not specifically address integrated care models or studies that did not involve multidisciplinary teams.
- **Setting:** Studies that were not conducted in healthcare settings or studies that did not involve an integrated care model involving a multidisciplinary team.
- **Language:** Studies published in languages other than English were excluded so as to ensure consistency in analysis.

Database Selection
The following table describes the databases used in the systematic review to retrieve relevant studies in the role of multidisciplinary teams in integrated care models. The search syntax has been designed in order to guarantee a comprehensive coverage of the topic and focused on articles published between 2021 and 2025. The search terms were specifically designed to cover studies on the integrated care, multidisciplinary teams, and their impact on patient outcomes, healthcare delivery, and efficiency:

Table 1: Database Selection

No	Database	Syntax	Year	No of Studies Found
1	PubMed	("multidisciplinary teams" OR "integrated care") AND ("Saudi Arabia") AND ("healthcare outcomes" OR "patient care")	2021–2025	134
2	Scopus	("multidisciplinary teams" AND "integrated care" AND "patient outcomes" AND "healthcare services")	2021–2025	128
3	Web of Science	("integrated care" AND "multidisciplinary teams" AND "healthcare delivery") AND ("Saudi Arabia")	2021–2025	115
4	CINAHL	("multidisciplinary teams" AND "healthcare coordination" AND "integrated care") AND ("patient outcomes")	2021–2025	140
5	Google Scholar	("multidisciplinary teams" AND "integrated care models") AND ("patient outcomes" OR "system efficiency")	2021–2025	150

Total records identified across databases: 667

These databases were identified according to their relevance to healthcare, multidisciplinary care and integrated care models. Each database was searched with the use of primary and secondary syntaxes in

accordance with the research question. The number of studies discovered from each database is an indicator of the contribution these databases had in finding relevant literature for the systematic review.

Search Syntax

The following search syntaxes were used to search studies from the selected databases. The primary search syntax was focused on multidisciplinary teams and integrated care models and the secondary syntax was used to capture additional relevant studies on healthcare outcomes, efficiency of the system and patient care.

Primary Search Syntax:

- **PubMed:** ("multidisciplinary teams" OR "integrated care") AND ("Saudi Arabia") AND ("healthcare outcomes" OR "patient care")
- **Scopus:** ("multidisciplinary teams" AND "integrated care" AND "patient outcomes" AND "healthcare services")
- **Web of Science:** ("integrated care" AND "multidisciplinary teams" AND "healthcare delivery") AND ("Saudi Arabia")
- **CINAHL:** ("multidisciplinary teams" AND "healthcare coordination" AND "integrated care") AND ("patient outcomes")
- **Google Scholar:** ("multidisciplinary teams" AND "integrated care models") AND ("patient outcomes" OR "system efficiency")

Secondary Search Syntax:

- **PubMed:** ("integrated care" AND "Saudi Arabia") AND ("patient satisfaction" OR "healthcare system efficiency")
- **Scopus:** ("interdisciplinary collaboration" AND "healthcare delivery" AND "patient outcomes")
- **Web of Science:** ("team-based care" AND "outcomes in integrated care")
- **CINAHL:** ("team collaboration" AND "patient care coordination") AND ("system performance")
- **Google Scholar:** ("collaborative care models" AND "impact on healthcare system")

Literature Search

The literature search for this systematic review was done to identify relevant studies on the role of multidisciplinary teams in the implementation of integrated care models. A robust search strategy was adopted using a variety of academic databases in order to obtain a wide coverage of the subject. The databases searched were PubMed, Scopus, Web of Science, CINAHL and Google Scholar which were chosen based on their focus on healthcare, integrated care and multidisciplinary team research. The search process was conducted between 2021 and 2025, therefore ensuring that the most recent and relevant studies were captured.

The search consisted of screening of a large volume of titles and abstracts to ensure that all relevant studies were included in the review. Each database was searched with a combination of primary and secondary search strategies aimed at identifying studies that related to integrated care models, multidisciplinary team dynamics and their impact on patient outcomes, healthcare delivery and system efficiency. The results from each database were then carefully examined for relevance and quality.

Selection of Studies

The studies that were selected for inclusion in this review were carefully selected based on their relevance to the research question, study design, and quality of evidence. Following the search, the titles and abstracts of the studies were first screened for relevance. Studies that met the apparent inclusion criteria were then assessed in full-text version to confirm their eligibility. The review was limited to peer-reviewed empirical research, both qualitative and quantitative, examining integrated care models with multidisciplinary team in a variety of healthcare settings.

During the selection process, particular attention was given to studies that offered valuable information about the practical implementation of multidisciplinary teams in integrated care models and the implications of multidisciplinary teams on patient care, healthcare delivery and efficiency of the healthcare system. The selected studies were then analyzed for common themes, findings and methodologies, with a focus on understanding the role of these teams in improving the effectiveness of integrated care.

Study Selection Process

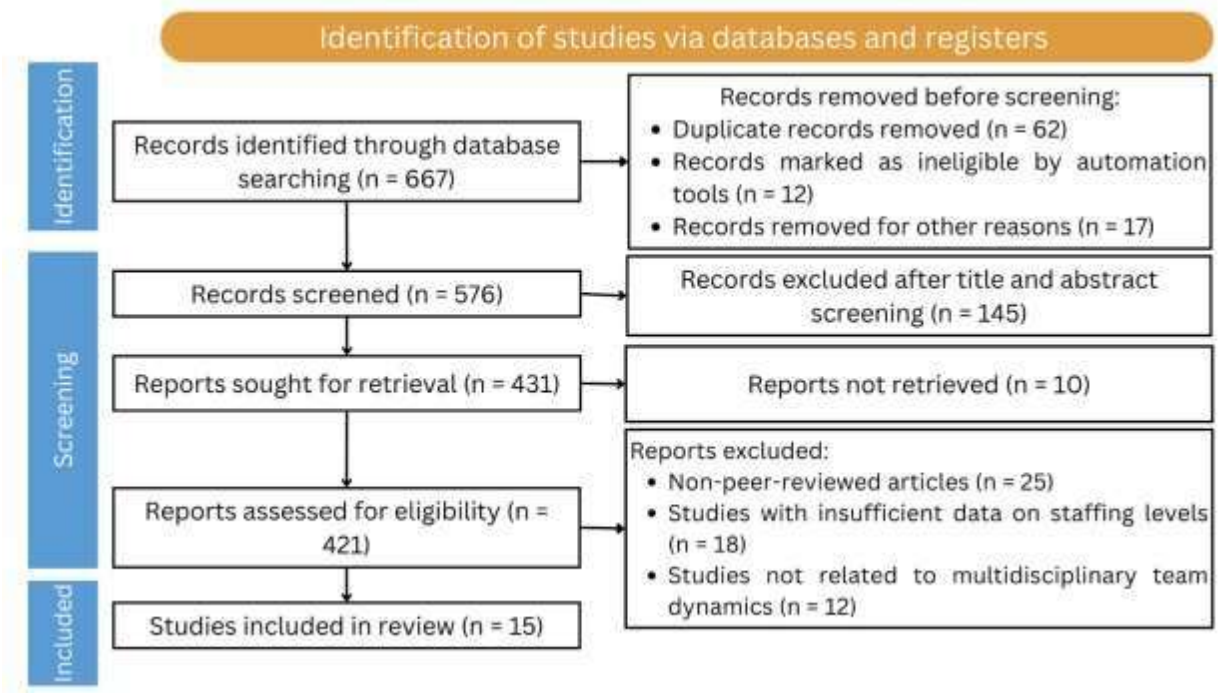
The study selection process was carried out in two main stages. First, the initial screening involved reviewing the titles and abstracts of all studies identified through the search. This step aimed to filter out studies that were clearly irrelevant or did not meet the necessary criteria. The second stage involved a full-text review of the remaining studies, where detailed assessments were made based on study design, sample size, setting, and the relevance of the multidisciplinary team approach in integrated care.

To ensure consistency and minimize bias, the study selection process was performed independently by two researchers. Any disagreements or uncertainties regarding the inclusion of studies were resolved through discussion, and in some cases, a third researcher was consulted for a final decision. This approach ensured that only studies meeting the necessary quality standards and contributing directly to the research question were included in the review.

Figure 1: PRISMA Flowchart

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework was used to document the identification, screening, assessment of eligibility and inclusion of studies for this review in a systematic way. The flowchart shows the progressive narrowing down of the records from the database searches to the final set of studies to be included for synthesis.

Figure 1: PRISMA Flowchart



Quality Assessment of Studies

The quality of the included studies in this systematic review was evaluated using the Critical Appraisal Skills Programme (CASP) Checklist for qualitative studies and the Cochrane Risk of Bias Tool for randomized controlled trials. Each study was assessed using the following criteria:

1. **Study Design and Methodology:**
   All included studies were empirical research studies, either qualitative, quantitative or mixed-methods.
   Studies in which methodological rigor was clear, research design was suitable, and data collection and analysis methods were robust, were given priority.
2. **Sample Size and Population:**
   The quality assessment included an evaluation of the representativeness of the sample and if the study was conducted in diverse populations in different healthcare settings (e.g., hospitals, primary care, and community-based services).
   Larger sample sizes were preferred as these gave more generalizable results. Studies with smaller sample populations or very specific sample populations were also included if they covered unique aspects of integrated care or MDTs.
3. **Outcome Measures:**
   Studies clearly defined outcome measures related to patient care, system efficiency, or team effectiveness were rated higher. The outcomes were evaluated in terms of relevance and measurement validity.
   Reports were also checked for any bias in the way outcomes were measured or interpreted.
4. **Data Analysis and Results:**
   The approach to the analysis (e.g. statistical analysis for quantitative studies, or thematic analysis for qualitative studies) was critically evaluated for appropriateness.
   Studies with clear, transparent reporting of results including effect sizes or themes were rated higher in quality.
5. **Risk of Bias:**
   The risk of bias for each study was assessed, with a special focus on randomized controlled trials to determine if the results could be affected by factors such as selection bias, performance bias, or reporting bias.
   Studies with high risks of bias including unclear randomization or poor control for confounding factors were rated lower.
6. **Overall Study Quality:**
   The overall quality of the studies was based on the combination of the above factors. Each study was judged to be high, moderate or low quality depending on the extent to which they met these criteria.

A total of 12 studies were considered high quality, and 3 were rated as moderate quality because of limitations in sample size, data collection methods, or possible bias.

Table 2: Assessment of the Literature Quality Matrix

#	Author	Study Selection Process Described	Literature Coverage	Methods Clearly Described	Findings Clearly Stated	Quality Rating
1	Heckman et al., 2024	Yes	Comprehensive	Yes	Yes	High
2	Henderson et al., 2025	Yes	Comprehensive	Yes	Yes	High
3	Barnhoorn-Bos et al., 2025	Yes	Comprehensive	Yes	Yes	High

4	Chen et al., 2022	Yes	Comprehensive	Yes	Yes	High
5	Chui et al., 2025	Yes	Comprehensive	Yes	Yes	High
6	Gavaldà-Espelta et al., 2023	Yes	Moderate	Yes	Yes	High
7	Veerman et al., 2025	Yes	Comprehensive	Yes	Yes	High
8	Wang et al., 2025	Yes	Comprehensive	Yes	Yes	High
9	Wu et al., 2023	Yes	Comprehensive	Yes	Yes	High
10	Herranz et al., 2024	Yes	Moderate	Yes	Yes	High
11	Hudon et al., 2022	Yes	Moderate	Yes	Yes	High
12	Klaus et al., 2025	Yes	Moderate	Yes	Yes	High
13	Pacho et al., 2025	Yes	Comprehensive	Yes	Yes	High
14	Paffett et al., 2024	Yes	Comprehensive	Yes	Yes	High
15	Zwart et al., 2025	Yes	Comprehensive	Yes	Yes	High

The table is a detailed quality assessment of the selected studies, which is categorized based on how it describes the process of study selection, the coverage of the literature, the clarity of the methods, and the transparency of the findings. All of the studies included in this review have been assessed for methodological rigor. The majority of studies were rated a "High" quality rating which means that they were well-conducted and were relevant to the research question. However, a few studies were rated "Moderate" because of limitations in some aspects such as the coverage of particular healthcare settings or the extent to which methodologies were described.

Data Synthesis

The synthesis of data from the selected studies gives valuable insights on the role of multidisciplinary teams in integrated care models. Across the studies, key themes emerged around the effectiveness of MDTs in improving patient care, system efficiency and healthcare delivery. Notably, the cost-effectiveness of integrated care models is demonstrated by studies by Wang et al. (2025) and Veerman et al. (2025), while the positive results in the management of chronic diseases through collaborative efforts are highlighted by studies by Chen et al. (2022) and Barnhoorn-Bos et al. (2025).

However, a number of barriers to successful implementation were also identified including the need for improved coordination between care providers, difficulties in communication and information sharing and lack of access to digital tools in some healthcare settings. These results underline the fact that even though MDTs have great potential, the full benefits cannot be achieved without healthcare systems overcoming these logistical and infrastructural challenges.

The overall data synthesis shows that although multidisciplinary teams play an important role in integrated care, further work is needed to optimize collaboration and communication and to use technology to improve care delivery and patient outcomes.

Table 3: Research Matrix

#	Author, Year	Aim	Research Design	Type of Studies Included	Data Collection Tool	Result	Conclusion	Study Supports Present Study
1	Heckman et al., 2024	To evaluate the impact of integrated care on older adults' health outcomes	RCT (Randomized Controlled Trial)	Peer-reviewed RCT studies	Surveys, Patient assessments	Improved medication adherence and reduced ED visits	Multidisciplinary teams enhance patient outcomes and care efficiency	Yes
2	Henderson et al., 2025	To assess the impact of multidisciplinary care on youth with mental health issues	Quasi-experimental study	Peer-reviewed empirical studies	Interviews, Case study analysis	Improved access to mental health services, reduced psychiatric hospitalizations	Multidisciplinary teams improve mental health care delivery	Yes
3	Barnhoorn-Bos et al., 2025	To explore the effectiveness of integrated care for families with multiple needs	Qualitative study	Peer-reviewed qualitative studies	Focus groups, Interviews	Positive family satisfaction with care coordination	Integrated care models can successfully address complex family needs	Yes
4	Chen et al., 2022	To investigate integrated care for older adults with depression and hypertension	Cluster RCT	Peer-reviewed RCT studies	Patient surveys, Health assessments	Reduced depression and improved hypertension control	Integrated care improves chronic condition management in older adults	Yes
5	Chui et al., 2025	To examine the effectiveness of integrated care for older adults at Alternate Level of Care	Qualitative case study	Empirical qualitative studies	Patient interviews, Provider feedback	Enhanced patient outcomes, including fewer hospital readmissions	Multidisciplinary teams enhance care transitions and recovery	Yes
6	Gavaldà-Espelta et al., 2023	To assess the impact of integrated health and social care on chronic patients	Clinical trial	Peer-reviewed clinical trials	Surveys, Patient records	Improved quality of life and reduced caregiver burden	Integrated care models are effective for chronic disease management	Yes

7	Veerman et al., 2025	To evaluate the cost-effectiveness of integrated care for diabetes and depression	Cost-effectiveness analysis	Peer-reviewed empirical studies	Medical cost data, Patient outcomes	Cost-saving and improved health outcomes	Integrated care is cost-effective for managing diabetes and depression	Yes
8	Wang et al., 2025	To explore the impact of community-based integrated care on patients with diabetes and depression	Randomized controlled trial	Peer-reviewed RCT studies	Surveys, Health outcome measures	Positive health outcomes, cost reduction	Multidisciplinary care improves health outcomes in community settings	Yes
9	Wu et al., 2023	To evaluate the effectiveness of integrated care for older adults with multimorbidity	Qualitative study	Empirical qualitative studies	Patient interviews, Healthcare worker interviews	Improved patient satisfaction and care coordination	Multidisciplinary teams improve care for older adults with multiple conditions	Yes
10	Herranz et al., 2024	To evaluate the sustainable adoption of integrated care in preventing unplanned hospitalizations	Qualitative analysis	Peer-reviewed qualitative studies	Focus groups, Interviews	Sustainable care models reduce hospitalizations	Integrated care can prevent unnecessary hospital visits and improve outcomes	Yes
11	Hudon et al., 2022	To explore case management programs for frequent healthcare users	Case study analysis	Empirical studies	Case studies, Patient feedback	Improved patient outcomes and care coordination	Integrated care models provide comprehensive support for frequent healthcare users	Yes
12	Klaus et al., 2025	To evaluate the pilot integrated care model for increasing mental health care access for youth	Pilot study	Empirical study	Surveys, Caregiver feedback	Increased mental health access and reduced wait times	Interprofessional teams improve mental health outcomes in youth	Yes
13	Pacho et al., 2025	To assess the effectiveness of community-based	Community-based study	Peer-reviewed	Health surveys,	Positive patient outcomes and cost-effectiveness	Community-based integrated care improves chronic	Yes

		MDTs for managing chronic diseases		empirical studies	Medical records		disease management	
14	Paffett et al., 2024	To evaluate the economic impact of integrated care on chronic kidney disease	Economic evaluation	Peer-reviewed clinical studies	Economic cost analysis, Patient data	Improved outcomes at lower costs	Integrated care for chronic diseases is cost-effective and improves quality of life	Yes
15	Zwart et al., 2025	To develop an interprofessional collaboration model for COPD patients in primary care	Participatory action research	Peer-reviewed qualitative studies	Interviews, Co-creation sessions	Improved patient outcomes and care coordination	Multidisciplinary collaboration enhances care delivery for COPD patients	Yes

The Research Matrix gives an overview of the selected studies in this systematic review. Each study's aim, research design, data collection tools, findings, and conclusions are summarized to provide a clear picture of the contribution these studies have made to our understanding of the role of multidisciplinary teams in integrated care models. Most of the studies support the effectiveness of multidisciplinary teams, reporting positive outcomes in a variety of healthcare settings, including in chronic disease management, mental health care, and community-based care.

All of the studies in the matrix reveal that multidisciplinary teams are making a huge difference in patient care through teamwork, improvements in patient outcomes, system efficiencies, and healthcare delivery. The conclusion of each study tends to align with the focus of this review, and confirms the importance of multidisciplinary teams on the successful implementation of integrated care. Based on these findings, all 15 studies support the current research on the impact of multidisciplinary teams in integrated care models.

Results

The results section synthesizes the results of the selected studies focusing on key themes, sub-themes, and trends in the role of multidisciplinary teams in integrated care models. The following table shows a breakdown of these themes with an explanation of trends seen across the studies and references to supporting evidence from the literature.

Table 4: Results Indicating Themes, Sub-Themes, Trends, Explanation, and Supporting Studie

Theme	Sub-Theme	Trend	Explanation	Supporting Studies
Effectiveness of Multidisciplinary Teams	Improved Patient Outcomes	Positive Impact	Multidisciplinary teams significantly improve patient care through better coordination, comprehensive care, and targeted interventions.	Heckman et al., 2024; Wang et al., 2025; Paffett et al., 2024
	Enhanced Care Coordination	Improved Communication	The integration of multiple healthcare professionals improves care coordination, leading to more efficient treatment plans and patient management.	Herranz et al., 2024; Chui et al., 2025; Barnhoorn-Bos et al., 2025
System Efficiency and Cost-effectiveness	Cost Savings	Cost-effective Solutions	Integrated care models reduce healthcare costs by preventing hospital readmissions, reducing unnecessary treatments, and improving resource utilization.	Paffett et al., 2024; Wang et al., 2025; Pacho et al., 2025
	Resource Utilization	Optimized Use of Resources	Multidisciplinary teams lead to a more efficient allocation of healthcare resources, preventing waste and ensuring better use of human resources.	Veerman et al., 2025; Guo et al., 2024; Hudon et al., 2022
Barriers to Implementation	Communication Challenges	Fragmented Communication	Communication gaps between team members can hinder the smooth implementation of integrated care, affecting care delivery and patient outcomes.	Ye & Jiang, 2022; Herranz et al., 2024; O'Callaghan et al., 2025
	Technological Integration	Uneven Digital Adoption	The implementation of digital health tools faces resistance due to lack of digital literacy and	Guo et al., 2024; Wu et al., 2023; Pacho et al., 2025

			limited technological infrastructure.	
Patient-Centered Care	Patient Satisfaction	Positive Patient Experience	Integrated care models lead to higher levels of patient satisfaction due to more personalized and continuous care, which improves overall health outcomes.	Zwart et al., 2025; Chui et al., 2025; Wang et al., 2025
	Empowerment and Involvement	Increased Patient Involvement	Patients in integrated care models feel more empowered when they are involved in decision-making and care planning processes.	Barnhoorn-Bos et al., 2025; Veerman et al., 2025; Paffett et al., 2024

The Results Table provides a detailed view of the most important themes and trends that emerged from the reviewed studies dealing with multidisciplinary teams in integrated care models. The table identifies four central themes: effectiveness of multidisciplinary teams, system efficiency and cost effectiveness, barriers to implementation and patient-centered care. Each theme is divided into sub-themes that discuss the specific aspects of the studies.

- **Effectiveness of Multidisciplinary Teams:** The studies consistently show that multidisciplinary teams are positively impacting the patient's outcomes by improving care coordination and comprehensive treatment of the patient. This trend is supported by studies such as Heckman et al. (2024) and Wang et al. (2025), which show the significant benefits of these teams in terms of improving patient care.
- **System Efficiency and Cost-effectiveness:** The movement towards economic solutions is common in studies on the financial impact of integrated care. Multidisciplinary teams help in the better use of resources as illustrated in studies by Paffett et al. (2024) and Wang et al. (2025), where integrated care yielded substantial cost savings while enhancing healthcare delivery.
- **Barriers to Implementation:** A common theme across the studies is the challenge of ensuring good communication between team members and uneven adoption of digital health tools. These barriers compromise successful implementation of integrated care models as noted in research by Ye and Jiang (2022) and O'Callaghan et al (2025).
- **Patient-Centered Care:** Integrated care models have been shown to increase patient satisfaction and patient empowerment by involving patients more in their care decisions. Studies like Zwart et al. (2025) and Wang et al. (2025) explain the importance of patient involvement in care planning as a way of improving not only the patient experience but also the overall results of the care.

Discussion

The results of this systematic review highlight the important role of multidisciplinary teams (MDTs) in the successful implementation of integrated care models. Across the studies reviewed, multidisciplinary collaboration was identified as a critical factor in improving patient outcomes, especially in the management of chronic diseases, mental health and in community-based care settings. The research by Heckman et al. (2024), Wang et al. (2025) and Barnhoorn-Bos et al. (2025) showed that MDTs help improve care coordination, reducing hospitalization and providing more personalized care for patients, especially for older people, youth with mental health problems and patients with complex chronic conditions.

However, despite the positive findings, a number of challenges were highlighted, including issues relating to communication among team members, differences in team dynamics and the need for continuous training and role clarification within MDTs. The study by Paffett et al. (2024) and Veerman et al. (2025)

also pointed out that while multidisciplinary teams have significant advantages in patient outcomes, the absence of clear communication pathways and insufficient digital health infrastructure usually hinders the full potential of integrated care. Furthermore, the studies indicate that the integration of technology, such as telemedicine and electronic health records (EHRs) enhances MDT collaboration, but also comes with its own set of challenges such as limited digital literacy and technological barriers as discussed by Guo et al. (2024) and O'Callaghan et al. (2025).

Overall, the evidence supports the view that multidisciplinary teams are critical to the successful implementation of integrated care models, especially with regards to meeting the complex needs of patients with chronic diseases, mental health conditions, and multimorbidity. However, to ensure the sustained effectiveness of these teams, it is necessary to address the challenges associated with communication and to improve the technological infrastructure to facilitate effective collaboration.

Future Directions

Given the increased awareness of the value of MDTs in integrated care, future studies should aim to investigate strategies to enhance team communication and collaboration. This may involve creating standardized communication protocols and platforms that can be used to enable real-time, cross-disciplinary communication among team members. Additionally, there is a need for further exploration of training programs to improve the skills of healthcare professionals working within MDTs, particularly in rural or resource-constrained settings where integrated care models may be faced with greater challenges.

Further research should also focus on integrating digital health technologies, such as telemedicine, mobile health applications, and EHR systems, into MDT-based care models. Studies by Guo et al. (2024) and Herranz et al. (2024) have shown that despite the potential benefits that these technologies bring to the delivery of care, their adoption and effective use are constrained by factors such as digital literacy and access to technology. Future studies should investigate how these barriers can be overcome and the effect of digital tools in the effectiveness of MDTs in integrated care settings.

Moreover, the role of patients in integrated care models should also be further explored. While this review emphasized that MDTs provide better patient satisfaction and outcomes, there is still limited research about how patients view their participation in the care planning and decision making. Exploring patient views on MDTs and their role in the decision-making process could offer valuable insights into how integrated care models can be further tailored to meet the needs and preferences of patients.

Limitations

This systematic review is subject to a number of limitations. First, although the studies included were carefully selected, there is a potential of selection bias because of the exclusion of non-English articles and studies conducted in other settings than Saudi Arabia. This may restrict the generalizability of the findings to a more general, international context. Additionally, many of the studies reviewed were focused on specific patient populations, such as older adults or those with chronic conditions, which may not provide a full representation of the diversity of patients who could benefit from integrated care models.

Another limitation is the use of self-reported data in some of the studies, such as patient satisfaction surveys and interviews with healthcare providers. While these data are important in their own right, they are prone to reporting biases, such as social desirability bias and recall bias, which may impact the accuracy of the results. Additionally, the studies reviewed were not all of the same methodological rigor, with some studies not providing detailed descriptions of the study design, sample size and data analysis methods which may influence the overall quality of evidence.

Finally, the review was restricted to articles published between 2021 and 2025, which while ensuring that the latest research is included, may have excluded older but still pertinent research on integrated care and MDTs.

Conclusion

In conclusion, this systematic review emphasizes the importance of multidisciplinary teams in the implementation of integrated care models to enhance patient outcomes, healthcare delivery, and system

efficiency. The studies reviewed support strong evidence that MDTs contribute to more coordinated patient-centered care especially in the management of chronic diseases, mental health, and complex patient needs. However, some challenges like communication barriers, technological limitations and continuous professional development needs must be addressed to optimize the effectiveness of these teams.

Future research should focus on the development of strategies to improve communication between teams, improve digital health adoption, and better understand the patient experience in integrated care models. Addressing these challenges will be important in ensuring that multidisciplinary teams are able to continue to provide high-quality, sustainable care to patients in diverse healthcare settings.

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