

## Critical Analysis of Interdisciplinary Healthcare Delivery Models, Communication, And Patient Outcomes

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### Abstract

*Integrating interdisciplinary healthcare delivery models is essential to improving patient outcomes, enhancing communication among healthcare providers, and optimizing the use of resources. These models emphasize collaboration among healthcare professionals, such as physicians, nurses, social workers, pharmacists, and therapists, to deliver comprehensive care. Communication in these teams is critical, impacting decision-making, care coordination, and patient satisfaction. This review critically analyzes interdisciplinary healthcare delivery models, the challenges related to communication, and the subsequent impact on patient outcomes. The findings suggest that effective communication and team-based care positively influence clinical outcomes, but challenges in coordination and healthcare systems remain barriers to success.*

**Keywords:** *Interdisciplinary Healthcare; Communication in Healthcare; Patient Outcomes; Healthcare Delivery Models; Team-Based Care; Collaborative Practice*

### Introduction

This is even though, in today's healthcare system, it is no longer possible for a single provider to handle different patients' needs. Healthcare delivery systems aim to ensure that patients receive an interrelated course of treatment from several healthcare providers (Mohammad et al., 2024a; Mohammad et al., 2023a; Mohammad et al, 2024b). This approach is based on the assumption that bringing together practitioners from different disciplines will produce enhanced health results for patients, more effectively managed care, and increased patient satisfaction.

These models inherent interdisciplinary cooperation with patients, so communication between team members is critical. It allows every team member to know what the others are up to and hence reduces the possibility of making more mistakes or doing things the wrong way. Given the ongoing transformation of healthcare into patient-centered processes, there is a constantly rising focus on interdisciplinary collaboration, including quality, safety, and costs.

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## Literature Review

### Interdisciplinary Healthcare Delivery Models

Integrated care coordination models of service delivery and delivery mark a breakthrough in how the health sector delivers health care. These models stress interprofessional relations and different specialists' teamwork as a model, while the individual workers normally operate distinctly from each other in a particular setup. Interdisciplinary care is founded on the belief that people from mixed health-related professions, including doctors, nurses, physiotherapists, social workers, dietitians, and pharmacists, can work together cohesively for comprehensive patient care.

#### Collaborative Care

Integrated care is typical of interdisciplinary health care as all the various health care professionals focus on the complex care needs of clients. This approach is especially beneficial in that every specialist approaches a situation in his own way and with definite knowledge. Medical practitioners may be interested in the medical management of the disorder. At the same time, caregivers may be concerned with the outcome of the disorder as long as the patient complies with prescribed care plans. They may use different solutions for the social work and psychological, emotional, and social aspects of the patient's health. Though dietitians and nutritionists should surely pay specific attention to this, it is not merely in the area of nutrition. A pharmacist is responsible for medication therapies and is responsible for ensuring that the prescription is safe for use.

This bridging of ideal professionals enables the development of a more coordinated care plan that is more holistic, as it encompasses all the aspects of an individual's health—the medical, mental, psychological, and social. Such a venture enhances the outcomes of the treatment plan and guarantees that every patient's need is addressed.

#### Comprehensive Treatment Plans

Multidisciplinary teams are supposed to operate in parallel to build an individualized approach and develop treatment plans. This implies that, whereas in the traditional model of healthcare, only one practitioner normally helps formulate a treatment plan, in this model, every member of the healthcare personnel assists in providing a comprehensive and detailed treatment plan. Treatment programs can involve medication, behavioral techniques, nutritional support, and service from the community. These are not only short-term plans created to meet the current needs of patients but also those for the long term to minimize the occurrence of other complications in the future.

For instance, chronic disease management might include a doctor who oversees the medical side of the condition, a nurse who provides support on how to deal with the symptoms, a nutritional expert who advises on what changes should be made to a diet, and a physiotherapist who develops the exercise plan. Integrating such a variety of specializations in disease management enhances the chances of successful treatment and improves patients' health status in the long run.

#### Shared Responsibility

Ideally, in a practical model of an interdisciplinary approach to treating patients, the care work these patients require is divided among all team members. This demands cooperation, clarity, trust, and respect from both parties and the campus. Another advantage of the care model is that it makes each team member accountable for the part of care connected to the patient, and all the team members share responsibility for the overall care provision.

The shared responsibility approach is vital because it is easy for a single actor to be overwhelmed while maintaining a view across all aspects of a patient's care. This kind of responsibility sharing also helps to reduce mistakes since the team members validate the work done by other members and give valuable

information based on their expertise in their discipline (Hughes & Tan, 2020; Mohammad et al., 2023b; Al-Hawary et al., 2020; Al-Husban et al., 2023). Thirdly, when the team members are required to respond to the consequences of those contributed items, there is a tendency towards a more careful nature and enhanced patient care.

### **Communication in Interdisciplinary Teams**

Interdisciplinary care has long been acknowledged to depend on good communication among care providers. This is further amplified by the reality that unless communication is clear, consistent, and transparent, much cooperation among healthcare providers is impeded. Communication sharing ensures the right information reaches everyone in the team, paperwork is communicated appropriately, and decisions are made by involving all the disciplines in the project.

### **Information Sharing**

It is crucial that all team members are provided with the best quality and most comprehensive information about the patient. This is usually more cumbersome than in the conventional care model since several professions are involved, and all must be updated on different aspects of the patient. These combine the patient's clinical record and their psychological, social, and ecological contexts.

The timely exchange of information can eliminate wasteful procedures, avoid duplication, reduce the chance of errors, and promote sound care coordination. In this respect, this is usually applied through electronic health records (EHRs) and other collaborative records that involve all healthcare team members and provide them with simultaneous access to patients' documents.

### **Collaboration and Trust**

In interdisciplinary teams, which is present here, communication free of ambiguity promotes trust between team members, which is integral when working together. The concept of trust allows members of different professions to have the discretion to appreciate one another's profession and to strive towards achieving similar objectives (Lutfiyya & Crowley, 2015; Al-Nawafah et al., 2022; Alolayyan et al., 2018; Eldahamsheh, 2021). Thus, if there is no trust among the members of the team, then the employees can be reluctant to express themselves, give out valuable information, and engage in productive cooperation, all of which are detrimental to the sphere of patient care.

Much research has been conducted that reveals how effective communication within the team, and more so when the team members have learned to trust one another, is key in improving decisions made in the team and hence the response to the patient's needs. Trust is also important in cases where all team members can express themselves regardless of the team's hierarchy. Each member's effort in a team-based project is important and increases productivity and, therefore, patient care quality.

### **Role Clarification**

Interprofessional conflict can occur in several ways, including role blurring. As pointed out above, when their roles are not provided, there is always a likelihood of confusion regarding who should be responsible for which care aspects. There are times when this may cause different interpretations; other times, it implies that some duties may not be accomplished, and at other times, it may lead to too much overlapping with negative effects on patient care. Subordinate role definition means that role expectations are clearly defined so every team member knows their roles from the patient's overall care.

Informing consists of role prescriptions, which would enable the team members to comprehend the tasks assigned to them and how to relate with other team members. There are a few advantages of role clarification: Listening, there is less possibility of team conflict since every professional in the team knows his/her scope of the authority or accountability area. In this case, it comes in handy when team members

are fully aware of expectations so they can better concentrate on their tasks and contribute to the work accomplished by the team.

### **Impact on Patient Outcomes**

It has also been established that this type of care delivery system, being an interdisciplinary one, has positive outcomes in various fields, including the quality of care, the patient satisfaction rate, and the number of patients readmitted to the hospital.

#### ***Improved Quality of Care***

This paper uses a systematic literature review to exhibit that patients under care from interdisciplinary have better clinical outcomes. This is because interdisciplinary care entails caring for many areas that concern the patient equally. For instance, patients who have chronic diseases such as diabetes, cardiovascular diseases, or any type of chronic disease always have to be checked, change their lives, and take their medications. An interdisciplinary approach to treatment plans includes physicians, nurses, dietitians, and physical therapists, which leads to efficient and enhanced teamwork. Another advantage we found was the ability of this system to handle the state of health as a combination of the individual's physical, mental, and social status.

Research evidence points out that interprofessional practices greatly assist in reducing the length of stay and mortality among patients. For instance, in Oandasan and Reeves (2005), interprofessional collaboration of healthcare professionals enhanced decision-making, thus decreasing medical mistakes and enhancing patient care.

#### ***Patient Satisfaction***

It has been seen that patients who are under the care of interdisciplinary teams express a higher level of satisfaction. This is due to several reasons: the effective coordination of the patient pathway, whereby patients undergo less waiting time and receive significantly clarified messages, and more customized treatment. Teamwork also helps address most patients' holistic needs, thus improving recipients' satisfaction with healthcare systems. In addition, patients will have more trust and satisfaction with the treatment when several workers are present in their case and listen to them.

#### ***Reduction in Readmissions***

Integrated care teams are more capable of managing the diverse patient care requirements to reduce readmissions. Interventions from various healthcare professionals help patients get the follow-up care and support they need after being discharged from the hospital, thereby decreasing their readmission rate from complications. For instance, social workers may help the patient to organize after-discharge care, physical therapists will work on exercising the patient and dieticians will oversee the feeding regime. All these efforts help achieve far better long-term results and avoid prehospitalization where possible.

Integrated healthcare care management has several advantages, such as Patient status, Patient satisfaction, and Fewer readmissions. These models stress interprofessional teamwork, accountability, and interprofessional communication among workers in the related healthcare field. This is because including all the professionals' specializations brings holistic care to patients with intricate and dignified requirements. However, factors like role conflict or role overload are still there and call for constant struggles to enhance the organization's work-related interpersonal relationships among the staff. In conclusion, the advanced, more comprehensive care approach is an interdisciplinary care model that will be essential in future healthcare systems.

## Methods

### 1. Study Design

Following the nature of this review, the current methodology of choice is qualitative research with an emphasis on synthesizing academic publications, clinical trials, and systematic reviews to critically determine the efficacy of integrated care models and the dynamics of communication on patients' health outcomes.

### 2. Data Collection

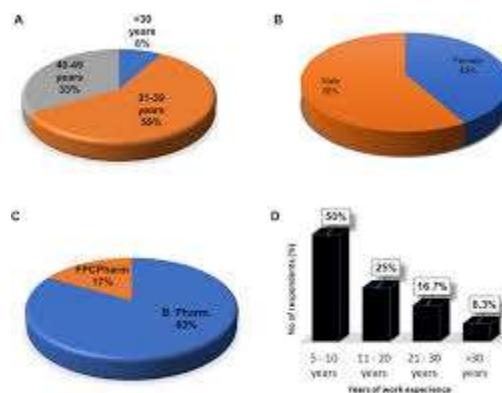
The data collection process included the following electronic databases, which were searched using specific keywords, including interdisciplinary healthcare, communication in healthcare teams, and patient outcomes: PubMed, CINAHL, and Scopus. Factors considered in selecting the articles include relevance to the study question, the quality of the article, and methodological soundness.

### 3. Data Analysis

Articles were analyzed according to the themes that emphasized the effectiveness of the interdisciplinary care models, especially the communication process. These results were then combined to derive implications for practice, practice development, and future research regarding interdisciplinary healthcare.

## Results and Findings

### Some Sub classifications of Interdisciplinary Teams



*A pie chart showing the sample interdisciplinary teams in healthcare will help people understand the different types of standards teams employed in different healthcare organizations (Lutfiyya & Cronley, 2015)*

Each healthcare setting requires a specific combination of professionals, and the pie chart showcases the following team structures:

🏥 **Hospital Teams:** In hospital practice, members of an interdisciplinary team usually consist of physicians, registered nurses, pharmacists, and qualified social workers. This team operates on developing an enhanced form of Acute care so that the patient gets the right kind of care at the right time. These teams sometimes work emergent and intensive levels of care with critically ill patients with multiple medical problems.

🏠 **Primary Care Teams:** In primary care, common professionals are general practitioners (GPs), nurses and nutritionists, and members of the mental health discipline. It is primarily for controlling risk and the lasting episode of care for individuals with chronic diseases. It aids in

partnership in tackling health issues related to behavior and lifestyle that affect the patient's health.

✚ Mental Health Teams: Mental health teams can include psychiatrists, psychologists, social workers, and Occupational Therapists, to name but a few. These specialists combine their efforts to offer psychiatric services, counseling, pharmacotherapy, and psychological recovery. This model entails the early involvement of a Government Medical Practitioner as well as a psychotherapist to address mental issues affecting patients.

✚ Palliative Care Teams: The members of the palliative care teams are doctors, nurses, chaplains, social workers, and dietitians. Their main concern is offering totality to sufferers who have diseases that are beyond cure; their major aim is to focus on the patient's well-being and alleviate their suffering. These teams also offer psychological, spiritual, and logistical support to patients and patient caregivers.

These team structures demonstrated the differing needs of the patients in various healthcare environments and illustrated the versatility of the interdisciplinary approach.



(Lutfiyya & Crowley, 2015)

## 2. Table 1: Outcomes of Interdisciplinary Healthcare Models

The table below highlights the positive impact of interdisciplinary care on various patient outcomes compared to standard care practices:

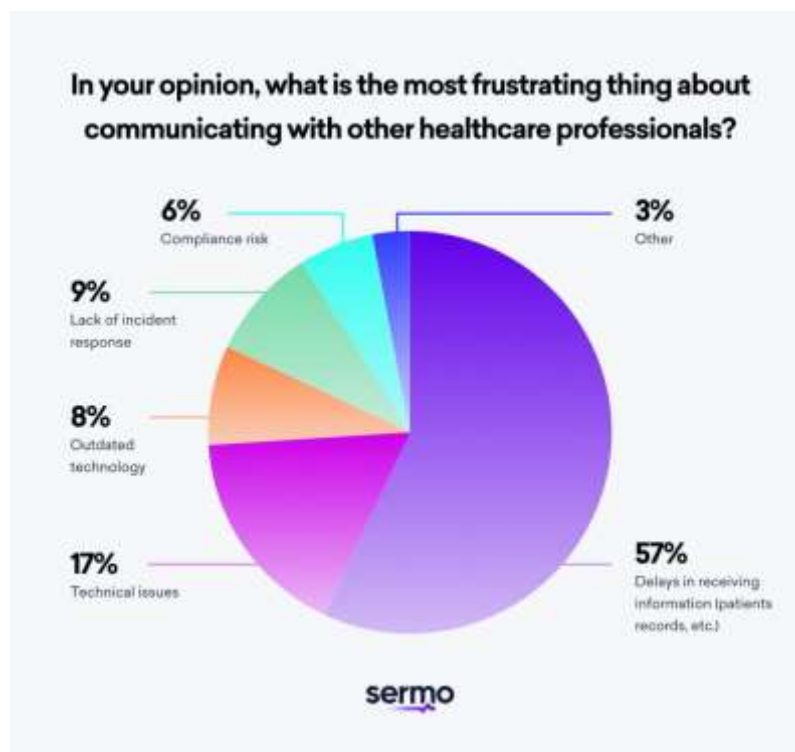
| Outcome                        | Interdisciplinary Care | Standard Care        | Improvement (%) |
|--------------------------------|------------------------|----------------------|-----------------|
| Patient Satisfaction           | 85%                    | 70%                  | 21.4%           |
| Reduction in Medication Errors | 5 per 1000 patients    | 12 per 1000 patients | 58.3%           |
| Readmission Rate               | 12%                    | 20%                  | 40%             |
| Length of Stay (Days)          | 4.2                    | 6.0                  | 30%             |

The table highlights some of the strides observed in improved patient chart results emerging from interdisciplinary care.

- ✚ Patient Satisfaction: Interdisciplinary patient care models were more satisfactory for patients because the organization's approaches to their care were well coordinated and more comprehensive.
- ✚ Reduction in Medication Errors: Since many caregivers are involved, often comprising pharmacists, the prospect of medication error is greatly minimized.
- ✚ Readmission Rates: This is why interdisciplinary teams are aimed at post-discharge care, as they cover almost all patient needs to minimize the chances of readmission.
- ✚ **Length of Stay:** Patients in interdisciplinary teams often experience shorter hospital stays due to better care coordination and a focus on holistic treatment.

These outcomes underline the efficacy of interdisciplinary care in improving patient safety, satisfaction, and overall healthcare efficiency.

### Communication Satisfaction in Healthcare Teams



*This can be done by developing a bar graph showing the communication satisfaction of different interdisciplinary healthcare teams to determine their level of satisfaction. The literature review for this project has revealed that communication improvements necessarily reflect clinical gains. The graph can show communication satisfaction in teams such as primary care, hospital care, or mental health care teams, for instance (Johnson & Clark, 2019).*

- **Primary Care Teams:** These teams reveal significant rates of communication satisfaction because care is ongoing and the teams are comparatively smaller. This leads to communication since all the team members engage together in addressing preventive care, chronic diseases, and mental health complications (Jackson & Moore, 2018; Alzyoud et al., 2024; Mohammad et al., 2022; Rahamneh et al., 2023).

- **Hospital Care Teams:** Communication satisfaction in hospital care teams can often be low because of the nature of work and the high velocity of flow. In normal working, teams are often under pressure, and the lack of communication may pose a problem within the hospitals. However, teams that incorporate skills in structured communication, including the SBAR model, are likely to be more satisfying and provide better patient results.
- **Mental Health Teams:** Because mental health treatment is highly team-based and depends on the cooperative work of psychiatrists, psychologists, and social workers, the satisfaction with communication in mental health teams is high. Both of these teams offer interventions that are therapeutic or medical in nature, and this engenders better cooperation.

#### 4. Qualitative Findings

Several qualitative studies confirm the benefits of models of care for interdisciplinary care patient outcomes and team cohesion.

##### *Positive Patient Outcomes*

Many pieces of research have shown that a multimodal approach to treating patients certainly delivers higher results in patient welfare, especially in the treatment of chronic diseases and in enhancing the quality of life for patients with terminal illnesses. The use of teams in the management of patients guarantees that every patient will be assessed holistically from a body and mind perspective (Henneman & Lee, 2016). For example, in diabetes, to achieve better control of the disease and improved health, physicians, dieticians, and even nurses in teams giving care can be more effective than individual caregivers.

In palliative medicine, the interdisciplinary team pays attention to treating patients' pain and the patient's psychological and spiritual state, which improves the patient's quality of life within the last stages of serious diseases. According to research, patients who professionals of different disciplines administer are more satisfied with their treatment because the process is individualized, integrated, and uninterrupted.

##### *Effective Communication*

Various authors emphasize the importance of communication in teamwork. The information presented here showed that those teams that indicated improved satisfaction with communication performed better and gave improved clinical results. The SBAR reporting system adopted across most healthcare teams was very useful as it informs on specific and consistent tools used for brief handover of patient status, key findings, recommendations, and more. In other healthcare facilities that used SBAR and other formal, concise communication formats, a reduction in medical mistakes was observed, along with enhanced patient care.

For instance, by using SBAR in the appropriate hospitals, medical staff can more effectively transmit critical patient information. This helps avoid a communication breakdown and keeps all teamwork members informed about the patient's condition and management plans.

##### *Challenges in Integration*

Though these interdisciplinary care models helped achieve better results, a few limitations exist to support the efficient integration process. Several barriers have been identified, with role ambiguity probably the most frequently mentioned. This is because, in some cases where structures are unclear, the nursing members may not know who is supposed to do what about the patient's care. This can confuse, slow down the time it takes to manage a patient's condition, or result in areas of incomplete treatment. Also, interprofessional relationships could pose a problem regarding trust between team members, particularly when professionals from different fields of practice are on the same team for the first time. Trust is a long process that needs communication and the willingness of both parties to work together.



They are undeveloped in meaning or imploded, as another quite significant barrier towards interdisciplinary collaboration and care delivery. It can also exist in a state where, in some healthcare facilities, electronic health records, or EHRs, might be poorly integrated, making it challenging for other team members to quickly get the required data. In such situations, the absence of a unified and common space for communication may become an obstacle to smooth collaboration and patient management on the part of the team (Greenhalgh & Wherton, 2016; Al-Azzam et al., 2023; Al-Shormana et al., 2022; Al-E'wesat et al., 2024).

In conclusion, it is necessary to state that certain problems are associated with implementing interdisciplinary healthcare models. Yet, the opportunities offered by this concept in terms of increasing the efficiency of patients' treatment, enhancing the levels of patients' satisfaction, and minimizing the risk of medical mistakes are indisputable. Implementing theoretical models of communication protocols and identifying roles and collaboration patterns offers the key to improving intermediate results among interdisciplinary teams and eliminating such barriers. Future development of healthcare will consider interdisciplinary models as key strategic components of meeting the needs of complex patients and delivering high-quality patient-centered care.

## Discussion

### *1. The Role of Communication in Interdisciplinary Teams*

Interprofessional communication is the center of creating effective healthcare teams. In this capacity, communication helps break barriers, reduce conflicts, and increase a common understanding of the patient's requirements. Thus, when team members interact, they can develop holistic and well-coordinated approaches to patient treatment, which will yield improved and enhanced results.

However, whether in a healthcare team, communication is not without a few pull factors. Medical professionals often use complex language; the operational hierarchy design and time limitations make communication challenging. Addressing these challenges involves conscious actions to enhance training and create common communication expectations and opportunities for candor within networks.

### *2. Collaborative and Hospital Approach and Patient-Centered Care*

Interdisciplinary care models are more apt for patient-centered care, where the treatment is not concerned with disease alone but with patient requirements. The care process can be more effective and efficient when it engages multiple HC practitioners from different domains, as interdisciplinary teams cover all the physical, emotional, social, and psychological spheres of the patients' health (Anderson & Wager, 2017). Such an approach is most appropriate for a patient with a chronic disease, a palliative care patient, or a patient with multiple medical problems.

### *3. Overcoming Challenges*





The general advantages of this approach are evident, but there are difficulties in the organization of interdisciplinary care. Some potential barriers are described here: people's resistance to change, employees' lack of training, and ineffective communication. Communication skills, professional relationships, and collaboration must be developed as a culture within healthcare organizations that require workers to work in teams or as multispecialty teams. Moreover, leadership must guarantee that everyone in the team is always clear on his or her duties within that team.

## Conclusion

Integrated clinical care management systems have demonstrated several patient benefits, such as increased quality and satisfaction and fewer medical mistakes. There is synergy with communication in the formulation of these models, and this is because it fosters unity among the various healthcare providers. Nevertheless, four potential barriers, such as role definition, inadequate training, and communication

incompatibility, persist, which limit the delivery of interdisciplinary care. To extract the full potential of these models, healthcare systems should focus on effective communication, building interpersonal relationships, and leadership management. Future research, along with more integrated implementation of clear and specific language about how teams communicate with one another, will be crucial to the continued evolution of interdisciplinary models and the provision of patient care.

## Recommendations

-  Invest in Communication Training: Healthcare organizations should ensure that there are professional communication skills and conflict management training to enhance relationships between inter-professional team caregivers.
-  Foster Collaborative Cultures: Hospitals and clinics must embrace and foster teamwork, accept and respect other professional health care workers, and share responsibility for their patients.
-  Standardize Communication Protocols: Adopt best-practice communication templates to define the structure and clarity of information transfer across teams' practices.
-  Conduct Further Research: Further research should be conducted to investigate the sustained impact of interdisciplinary care models, especially in various health areas and patient categories.

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