

Collaborative Care In Emergency Nursing: Working Together For Timely And Effective Patient Management

Habib Salem Hutilan Alshamary¹, Albandari Fahad Monahi
Aljahani², Sultan Madallh Saud Alhumud³, Wisam Eidhah
Alharthi⁴, Maher Moalla Alharbi⁵, Bandari Muteb
Mohammed Alenazi⁶

1. Nursing technician – Hail Health Cluster
2. Nursing specialist – Prince Abdul-Mohsen Hospital in Al-
ula, home care nursing
3. Nursing technician – Aziziyah Health Center
4. Emergency Medical Services Specialist - Al-Noor Specialist
Hospital
5. Emergency Medical Services Specialist – King Fahd
General Hospital
6. Technician nursing – Turaif General Hospital

Abstract

Background: nursing collaborative care in emergency settings plays a crucial role in ensuring timely and effective patient management. This review explores the importance of collaboration among healthcare professionals in emergency situations to provide high-quality care to patients. The key components of nursing collaborative care, including communication, teamwork, and coordination, are essential for delivering timely interventions and improving patient outcomes. By working together and utilizing their unique skills and expertise, nurses can enhance the efficiency of emergency care delivery and promote a patient-centered approach. **Aim:** to highlights and explore the significance of collaborative care in emergency settings for timely and effective patient management. **Design:** A systematic review was conducted, from fourteen studies were included. **Result:** studies demonstrating improved timely and

patient effective management more often incorporated inter-professional teamwork than studies that incorporated inter-professional coordination and collaborative care in emergency nursing setting had a positive effect on timely and patient effective management.

Keywords: Collaborative care, emergency nursing, patient management.

Introduction

Collaborative care in emergency nursing refers to the coordinated efforts of healthcare professionals from various disciplines to provide comprehensive and timely care to patients in the emergency department. This approach involves nurses, physicians, paramedics, social workers, and other healthcare providers working together to assess, diagnose, and treat patients in a fast-paced and high-pressure environment (**Jia et al., 2023**).

Collaborative care in emergency nursing emphasizes communication, teamwork, and shared decision-making to ensure that patients receive the best possible care. By working together, healthcare professionals can quickly identify and address the needs of patients, coordinate treatment plans, and provide support to both patients and their families during times of crisis (**O'Connor, 2023**).

The improvement of patient outcomes is one of the main advantages of collaborative treatment in emergency situations. Collaboration among healthcare providers can result in better accurate diagnoses and treatment plans by ensuring that all parts of a patient's condition are addressed and providing complete and well-coordinated care (**O'Connor, 2023**).

In the healthcare industry, patient safety is the first priority, and cooperative emergency care is essential to fostering that safety. Together, healthcare providers may better detect and manage any safety risks related to prescription administration, patient transfers, and care transitions—all of which are high-risk areas for mistakes. Every year, medical errors affect around 7 million people

in the United States; of them, 7,000 to 9,000 patients die as a result of pharmaceutical errors and inaccurate diagnoses. The Joint Commission estimates that 80% of major medical errors are caused by misunderstandings that occur during patient handoff. Thankfully, adverse incidents can be avoided and a culture of safety can be fostered within healthcare institutions through collaborative communication and the sharing of knowledge between health workers **(WHO, 2023)**.

Clinical communication technology further facilitates the task of bridging communication barriers in emergency care through collaboration care. Care team members can communicate with doctors who haven't updated their electronic health records and receive automated warnings via text message about important laboratory findings thanks to this technology, which keeps everyone connected at all times. Through encrypted text, voice, or video, a clinical collaboration platform effectively provides relevant information to the appropriate people at the appropriate time **(Haleem et al., 2021)**.

Additionally, teamwork in emergency care improves patient outcomes and makes better use of available resources, which lowers costs and improves resource distribution. For instance, when a group of experts works together to create a patient's care plan, needless tests and treatments can be omitted, which lessens the financial load on patients and the facilities that provide healthcare. Healthcare institutions can save unnecessary costs by improving clinical workflow efficiency through the implementation of current communication technology **(Buljac-Samardzic et al., 2020)**.

On the other hand, timely and effective patient management is a critical aspect of healthcare that involves the coordination of various healthcare professionals to provide the best possible care for patients. This includes timely diagnosis, appropriate treatment, and ongoing monitoring to ensure the patient's well-being. Effective patient management involves through communication between healthcare providers, accurate documentation of patients information, and collaboration to develop a comprehensive care plan. Timeliness is also crucial in patient

management to ensure that patients receive timely interventions and follow-up care **(Seelbach et al., 2023)**.

Ongoing training and education for emergency settings are essential to support effective teamwork among healthcare providers as continuous training and education help nurses stay up-to-date with the latest advancements in emergency care, protocols, and procedures; this enables them to provide high-quality care and make informed decisions during critical situations and training programs focus on enhancing communication skills, which are crucial for effective teamwork in emergency situation **(Merriel et al., 2019)**.

Moreover, ongoing education facilitate collaboration among healthcare providers by promoting a shared understanding of roles, responsibilities, and best practices and help nurses develop critical thinking skills, which are vital in making quick and accurate decisions in high-pressure environments which impact positively on patient care and outcomes. Also, ongoing training and education include strategies for managing stress, promoting self-care, and preventing burnout, which ultimately support nurses in providing better care and maintaining overall well-being and impact positively **(Sun et al., 2023)**.

The review

1. Aim and Research Question

This study aimed to highlights and explore the significance of collaborative care in emergency settings for timely and effective patient management The research questions that led the review was as follows: what is the impact of collaborative care in emergency settings on patient management?

2. Design

Seven major databases using PubMed, Cochrane Library, CINAHL, Embase, Ovid, gray literature and Google Scholar were systematically searched for relevant articles published between 2014 and April 2024. Of the original search yield of 5025 studies, 14 studies met the inclusion criteria according to the authors.

3. Methodology

Seven electronic databases— Embase, Ovid, the Cumulative Index to Nursing and Allied Health Literature (CINAHL), gray literature, PubMed, the Google Scholar, and The Cochrane Library—were thoroughly and methodically searched. Articles retrieved were initially reviewed for relevance by title and abstract for inclusion of collaborative patient care teams, patient satisfaction, and the hospital setting. After duplicate articles were removed, the remaining articles were analyzed per the inclusion and exclusion criteria within the full text.

4. Study selection

According to the inclusion criteria listed in Table 1 below, all of the selected studies that were included in this systematic review had to meet certain requirements.

Table 1. Inclusion/Exclusion Criteria.

| Inclusion Criteria | Exclusion Criteria |
|--|--|
| Experimental (randomized control trials), quasi-experimental, or non-experimental (cross-sectional) study design | Reviews, expert opinion, background articles, and conference proceedings |
| Team-based care interventions | Described providers’ impressions of patient effective management or provider satisfaction rather than actual measurements of patient effective management. |
| Hospital setting | Not written in the English Language |
| Written in English | Published earlier than 2014 |
| Timely and patient effective management measured as an outcome | |
| Published between 2014 and 2024 (to capture a broad range of research on our topic within the last decade) | |

5. Data Extraction and Quality Assessment

Using a standard template, the study design, sample population, team composition, team intervention, timely assessment instrument, patient successful management, and study findings were retrieved from each publication for additional analysis. To assure dependability, the authors first extracted the data and then double-checked it. The authors independently evaluated each article's quality using the modified GRADE criteria, which include effect magnitude, directness, consistency, quality, and kind of evidence.²⁰ Based on a defined scale, the quality of the articles was assessed from 0 to 4 (0 being extremely poor, 1 being low, 2 being moderate, 3 being high, and 4 being very high). The consistency of each rater was estimated using Cohen's kappa coefficient.

Results

The literature search yielded 5025 citations. After assessing for relevance, 132 articles were retrieved for full-text screening. After duplicates were removed, 100 articles were screened, with 14 studies subsequently included for analysis based on the inclusion and exclusion criteria.

The 14 papers that were reviewed were released between 2014 and 2024. Table 1 shows that of the investigations conducted, four were randomized controlled trials, nine were quasi-experimental, and one was cross-sectional. Eight studies were carried out, most of them in tertiary hospitals or academic medical centers. The remaining ones took place in neighborhood hospitals. Patient groups comprised adult patients in all trials except one, which focused on juvenile patients.

The makeup of the collaborative emergency care team differed among research. 76% of teams worked together, compared to 14% of pairs. Over three professions were represented in the majority of multi-professional teams ($n = 12$). Doctors, nurses, advanced practice providers, social workers, case managers, and therapists frequently made up multi-professional teams. Advanced practice providers or doctors and nurses were common combinations for

pairs team. While the family or caregiver was included in one study as a team member, the patient was included in another (table 2).

Table 2. Team Composition and Intervention

| Study | Team Matrix | Team Category | Team Intervention |
|-----------------------|---|---------------|-------------------|
| Hastings et al (2016) | nurses, allied health staff, family, physicians | Collaborative | coordination |
| Iannuzzi et al (2014) | hospitalist physician, resident, interns, students, an NP or a PA | Pairs | teamwork |
| Kane et al (2016) | physician, residents, case manager, social worker, respiratory therapist pharmacy, nutritionist, nurse, nurse manager, medical director | Collaborative | coordination |
| Kara et al (2015) | case manager, clinical nurse specialist, pharmacist, nutritionist, hospitalist – all unit-based | Collaborative | teamwork |
| Menefee et al (2014) | physicians, care manager, social worker, nutritionist, respiratory therapist, pharmacist, patient care assistants, therapists | Collaborative | teamwork |
| Scotten et al (2015) | physician, nurse, therapists, | Collaborative | coordination |

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|------------------------------|---|---------------|--------------|
| | informaticists, speech therapists | | |
| Southwick et al (2014) | physician, resident, pharmacist, nurse, case manager | Collaborative | coordination |
| Townsend-Gervis et al (2014) | nurse, dieticians, pharmacists, social worker, case managers, physician | Collaborative | coordination |
| Fransen et al (2017) | Secondary care midwife, nurses, gynecologist/obstetrician | Collaborative | coordination |
| Dinius et al (2020) | Physician, nurse, therapist, social worker | Collaborative | teamwork |
| Wray et al (2016) | physician-NP/PA team vs physician-only teams | pairs | teamwork |
| Taberna et al (2020) | Nurse, oncologist, Dietitian, Dentist, psychologist | Collaborative | teamwork |
| Contant et al (2019) | Patients, nurse, physician, social workers | Collaborative | teamwork |
| Selby et al (2019) | Nurse, oncologist, Dietitian, Dentist, psychologist | Collaborative | teamwork |

Studies with improved patient effective management were more likely to utilize multi-professional (n=8, 67%) versus dyad (n=4, 33%) teams. More than three quarter of the team interventions were categorized as inter-professional teamwork (76%, n=8). Within this group, 12 teams were multi-professional and 2 were dyads. Seven studies reported team interventions consistent with inter-professional coordination (42.9%), all of which were

composed of multi-professional teams. Based on team intervention analysis, studies demonstrating improved timely and patient effective management more often incorporated inter-professional teamwork (n=8, 57.1%) than studies that incorporated inter-professional coordination (n=6, 42.9%). Also, collaborative care in emergency nursing setting had a positive effect on timely and patient effective management.

Discussion

Emergency care is time-sensitive medical care that involves acute conditions, such as injuries/trauma, infections, stroke, acute cardiac events, acute complications of pregnancy, and asthma. Emergencies are generally life-threatening or disabling, and thus require early recognition and life-saving interventions. A delay in the initiation of care may result in avoidable death or disability, or reduce the effectiveness of the treatment (**Jia et al., 2023**).

Inter-professional collaboration, describes a continuum of team-based care ranging from coordination of care – which includes periodic, ad hoc communication to full integration of care, in which teams are designed a priori to provide comprehensive care for a specific patient population and timely transition of care, appropriate exchange of information, and the delivery of high-quality care are all important elements of an emergency care system (**Will et al., 2019**).

In order to investigate the connection between timely and patient-effective management and collaborative team care, we analyzed the body of current literature. The majority of research showed that collaborative team care improved patient effective management ratings. Research using multi-professional teams as opposed to dyads was more likely to provide better patient outcomes.

A number of studies have demonstrated that collaborative care in emergency nursing improves timely and patient effective management. A qualitative Multi-Perspective Analysis by Geese et al. found that inter-professional collaboration is considered an effective approach in improving patient outcomes (Geese et al.,

2023). Similarly, Rosen et al. an integrative literature review and concluded that the quality of teamwork is associated with the quality and safety of care delivery systems and patients (Rosen et al., 2019).

Several randomized controlled trials have demonstrated that collaborative care increases access to emergency care and is more effective and cost efficient than the current standard of care for treating common emergency illnesses. According to (Reist et al., 2022) who conducted a narrative review and concluded that collaborative care is associated with improved treatment outcomes and providers and patient satisfaction and safety.

Limitations

This review did not restrict its inclusion criteria to randomized controlled trials; instead, it included articles with a wide range of study designs. The papers were rated as having low to moderate quality due to the variability of their designs. This is a review limitation that might have introduced bias.

Conclusion

Thus far, collaborative care in emergency nursing environments has shown promise for improving patient outcomes, safety, and speedy treatment. Effective patient management is becoming a key metric for evaluating quality. Upon examining documented connections between team-based care in the hospital context and efficient patient management, we discovered that research employing team-based care had enhanced both timely and efficient patient management. The makeup of the team and the kind of team-based intervention—which may involve the patient—may have a significant impact on the results for the patient.

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