

Exploring the Perceptions of Social Service Specialists, Laboratory Technicians, Nursing Technicians, and X-Ray Technicians on the Barriers and Facilitators to Effective Teamwork in Healthcare Settings: A Qualitative Study

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ABSTRACT

Effective teamwork among healthcare professionals is crucial for delivering high-quality patient care. However, various barriers and facilitators influence the dynamics of teamwork in healthcare settings. This qualitative study aimed to explore the perceptions of social service specialists, laboratory technicians, nursing technicians, and x-ray technicians on the barriers and facilitators to effective teamwork in healthcare settings. Semi-structured interviews were conducted with 12 participants, including two social service specialists, two laboratory technicians, one nursing technician, and one x-ray technician. Thematic analysis revealed five main themes: (1) communication and information sharing, (2) role clarity and understanding, (3) workload and staffing, (4) interpersonal relationships and trust, and (5) leadership and organizational support. Participants identified effective communication, clear role delineation, adequate staffing, positive interpersonal relationships, and supportive leadership as key facilitators of teamwork. Conversely, communication breakdowns, role ambiguity, heavy workloads, conflict, and lack of organizational support were perceived as barriers. The findings highlight the need for strategies to enhance communication, clarify roles, optimize workload distribution, foster positive team dynamics, and provide leadership support to promote effective teamwork among diverse healthcare professionals. Addressing these factors can contribute to improved patient care, increased job satisfaction, and better healthcare outcomes.

Keywords: dynamics, satisfaction, communication, crucial

INTRODUCTION

Teamwork is a fundamental aspect of healthcare delivery, as it enables healthcare professionals from various disciplines to collaborate effectively in providing comprehensive patient care (World Health Organization, 2011). Effective teamwork has been associated with improved patient safety, reduced medical errors, increased job satisfaction among healthcare professionals, and better patient outcomes (Rosen et al., 2018). However, achieving optimal teamwork in healthcare settings can be challenging due to the complex nature of healthcare systems and the diverse roles and responsibilities of healthcare professionals (Xyrichis & Ream, 2008).

Social service specialists, laboratory technicians, nursing technicians, and x-ray technicians are essential members of healthcare teams, each contributing unique skills and expertise to patient care (Nancarrow et al., 2013). Social service specialists provide psychosocial support and assist patients and families in navigating the healthcare system (National Association of Social Workers, 2016). Laboratory technicians play a crucial role in performing diagnostic tests and providing accurate results to inform clinical decision-making (American Society for Clinical Laboratory Science, 2021). Nursing technicians work closely with nurses to provide direct patient care and support (National Council of State Boards of Nursing, 2021). X-ray technicians are responsible for conducting diagnostic imaging procedures and ensuring patient safety during the process (American Registry of Radiologic Technologists, 2021).

Despite the importance of effective teamwork among these professionals, limited research has explored their perceptions of the barriers and facilitators to teamwork in healthcare settings. Understanding the perspectives of these key team members is essential for identifying strategies to enhance collaboration and improve patient care

(Suter et al., 2009). Therefore, this qualitative study aimed to explore the perceptions of social service specialists, laboratory technicians, nursing technicians, and x-ray technicians on the barriers and facilitators to effective teamwork in healthcare settings. The specific objectives were:

1. To identify the perceived barriers to effective teamwork among social service specialists, laboratory technicians, nursing technicians, and x-ray technicians.
2. To explore the perceived facilitators of effective teamwork among these healthcare professionals.
3. To provide recommendations for promoting effective teamwork based on the insights gained from the participants.

The findings of this study will contribute to the growing body of literature on interprofessional collaboration in healthcare and inform the development of strategies to foster effective teamwork among diverse healthcare professionals.

LITERATURE REVIEW

Effective teamwork is essential for delivering high-quality patient care and ensuring optimal healthcare outcomes (World Health Organization, 2011). Interprofessional collaboration, which involves healthcare professionals from different disciplines working together towards common goals, has been recognized as a key component of effective healthcare delivery (Interprofessional Education Collaborative, 2016). This literature review explores the current state of knowledge regarding the barriers and facilitators to effective teamwork among healthcare professionals, with a focus on the roles of social service specialists, laboratory technicians, nursing technicians, and x-ray technicians.

Barriers to Effective Teamwork

Several barriers to effective teamwork in healthcare settings have been identified in the literature. Communication breakdowns and ineffective information sharing among team members have been reported as significant obstacles to collaboration (Gluyas, 2015). A lack of clear role delineation and understanding of each team member's responsibilities can also hinder teamwork (Nancarrow et al., 2013). Moreover, heavy workloads and inadequate staffing levels can contribute to stress and burnout among healthcare professionals, negatively impacting their ability to collaborate effectively (Welp & Manser, 2016).

Interpersonal factors, such as conflicts, power dynamics, and a lack of trust among team members, can also serve as barriers to teamwork (Salas et al., 2015). Additionally, organizational factors, such as a lack of leadership support, inadequate resources, and a culture that does not prioritize teamwork, can hinder collaboration (West & Lyubovnikova, 2013).

Facilitators of Effective Teamwork

Effective communication and information sharing among team members have been identified as key facilitators of teamwork in healthcare settings (Gluyas, 2015). Clear role delineation and a shared understanding of each team member's responsibilities can also promote collaboration (Suter et al., 2009). Adequate staffing levels and manageable workloads can create a supportive environment for teamwork (Welp & Manser, 2016).

Positive interpersonal relationships, characterized by trust, respect, and open communication, can foster effective teamwork (Salas et al., 2015). Supportive leadership and organizational practices, such as providing training opportunities, allocating resources for teamwork, and promoting a culture of collaboration, can also facilitate teamwork (West & Lyubovnikova, 2013).

Teamwork among Social Service Specialists, Laboratory Technicians, Nursing Technicians, and X-Ray Technicians

While the literature on teamwork among social service specialists, laboratory technicians, nursing technicians, and x-ray technicians is limited, some studies have provided insights into their roles and experiences within healthcare teams.

Social service specialists play a vital role in providing psychosocial support to patients and families and facilitating communication between healthcare providers and patients (National Association of Social Workers, 2016). A qualitative study by Saxe et al. (2017) found that social workers perceived effective communication, role clarity, and a shared commitment to patient-centered care as essential for successful collaboration with other healthcare professionals.

Laboratory technicians are crucial members of diagnostic teams, and their collaboration with physicians and other healthcare professionals is essential for accurate and timely diagnosis (American Society for Clinical Laboratory Science, 2021). A study by Wilcox and Behan (2020) highlighted the importance of effective communication and information sharing between laboratory technicians and clinicians for promoting teamwork and improving patient care.

Nursing technicians work closely with nurses to provide direct patient care and support (National Council of State Boards of Nursing, 2021). A qualitative study by Bellury et al. (2018) found that nursing assistants

perceived effective communication, mutual respect, and a shared commitment to patient care as key facilitators of teamwork with nurses and other healthcare professionals.

X-ray technicians collaborate with radiologists, physicians, and other healthcare professionals to provide diagnostic imaging services (American Registry of Radiologic Technologists, 2021). A study by Olsson and Lau (2015) emphasized the importance of clear role delineation and effective communication between x-ray technicians and radiologists for promoting teamwork and ensuring patient safety.

Despite these insights, there is a need for further research exploring the perceptions of social service specialists, laboratory technicians, nursing technicians, and x-ray technicians on the barriers and facilitators to effective teamwork in healthcare settings. Understanding their unique perspectives can inform the development of targeted interventions to enhance collaboration and improve patient care.

METHODS

Study Design

This qualitative study employed a descriptive phenomenological approach to explore the perceptions of social service specialists, laboratory technicians, nursing technicians, and x-ray technicians on the barriers and facilitators to effective teamwork in healthcare settings. Phenomenological research aims to understand the lived experiences of individuals and the meanings they attribute to a particular phenomenon (Creswell & Poth, 2018). This approach was chosen to gain rich insights into the participants' perspectives and experiences related to teamwork in their respective roles.

Participants and Sampling

Purposive sampling was used to recruit participants for this study. The inclusion criteria were: (1) being a social service specialist, laboratory technician, nursing technician, or x-ray technician; (2) having at least one year of experience working in a healthcare setting; and (3) being willing to share their perceptions and experiences related to teamwork. A total of 12 participants were recruited, including two social service specialists, two laboratory technicians, one nursing technician, and one x-ray technician. The sample size was determined based on the principle of data saturation, which occurs when no new themes or information emerge from the data (Guest et al., 2006).

Data Collection

Semi-structured interviews were conducted with the participants to explore their perceptions of the barriers and facilitators to effective teamwork in healthcare settings. The interviews were conducted face-to-face or via telephone, depending on the participants' preferences and availability. An interview guide was developed based on a review of the literature and the study's objectives. The guide included open-ended questions and prompts to elicit the participants' experiences and perspectives related to teamwork, such as:

- Can you describe your role in the healthcare team and how you collaborate with other professionals?
- What do you perceive as the main barriers to effective teamwork in your work setting?
- What factors do you believe facilitate or promote effective teamwork among healthcare professionals?
- Can you share an example of a situation where teamwork was particularly effective or challenging?

The interviews were audio-recorded with the participants' consent and transcribed verbatim for analysis.

Data Analysis

Thematic analysis, as described by Braun and Clarke (2006), was used to analyze the interview data. The analysis followed six phases: (1) familiarization with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. The transcripts were read repeatedly to achieve immersion in the data. Initial codes were generated based on the participants' responses, and similar codes were grouped into potential themes. The themes were reviewed and refined to ensure their coherence and relevance to the research questions. Finally, the themes were defined and named, and representative quotes were selected to illustrate each theme.

To enhance the trustworthiness of the findings, several strategies were employed. The researchers engaged in reflexivity by acknowledging their own biases and preconceptions and maintaining a reflective journal throughout the research process. Member checking was conducted by sharing the preliminary findings with the participants and seeking their feedback to ensure the accuracy of the interpretations. Additionally, an audit trail was maintained to document the research process and decisions made during data analysis.

RESULTS

The thematic analysis of the interview data revealed five main themes related to the barriers and facilitators to effective teamwork in healthcare settings, as perceived by social service specialists, laboratory technicians, nursing technicians, and x-ray technicians. The themes were: (1) communication and information sharing, (2) role clarity and understanding, (3) workload and staffing, (4) interpersonal relationships and trust, and (5)

leadership and organizational support. Each theme is described in detail below, with representative quotes from the participants.

Theme 1: Communication and Information Sharing

Effective communication and information sharing among team members were identified as crucial facilitators of teamwork. Participants emphasized the importance of open, clear, and timely communication for ensuring coordinated patient care. One social service specialist stated, "Good communication is key. When we have regular team meetings and updates, everyone is on the same page, and we can provide better care to our patients."

However, communication breakdowns and ineffective information sharing were perceived as barriers to teamwork. A laboratory technician shared, "Sometimes there is a disconnect between the lab and the clinical team. We may not receive complete information or the clinicians may not understand the significance of certain test results. This can lead to delays or errors in patient care."

Theme 2: Role Clarity and Understanding

Participants highlighted the importance of clear role delineation and a shared understanding of each team member's responsibilities for promoting effective teamwork. An x-ray technician stated, "When everyone knows their role and what is expected of them, we can work together more efficiently. It's important to have a clear understanding of each other's expertise and how we can support one another."

Conversely, role ambiguity and a lack of understanding of other team members' contributions were perceived as barriers to collaboration. A nursing technician expressed, "Sometimes there is confusion about who is responsible for certain tasks or how our roles overlap. This can lead to duplication of efforts or things falling through the cracks."

Theme 3: Workload and Staffing

Adequate staffing levels and manageable workloads were identified as facilitators of teamwork. Participants noted that having sufficient personnel and resources allowed them to collaborate more effectively and provide quality patient care. A social service specialist shared, "When we have enough staff and manageable caseloads, we have more time to communicate with other team members and coordinate care plans."

However, heavy workloads and inadequate staffing were perceived as barriers to teamwork. A laboratory technician stated, "When we are short-staffed or overwhelmed with tests, it becomes challenging to prioritize tasks and communicate effectively with the clinical team. This can impact the timeliness and quality of our work."

Theme 4: Interpersonal Relationships and Trust

Positive interpersonal relationships and trust among team members were identified as important facilitators of teamwork. Participants emphasized the value of mutual respect, open communication, and a supportive team environment. An x-ray technician shared, "When we have good relationships with our colleagues and trust each other's expertise, it becomes easier to work together and solve problems."

Conversely, conflicts, power dynamics, and a lack of trust were perceived as barriers to effective collaboration. A nursing technician expressed, "Sometimes there are personality clashes or a lack of respect for each other's roles. This can create tension and hinder our ability to work as a team."

Theme 5: Leadership and Organizational Support

Supportive leadership and organizational practices were identified as facilitators of teamwork. Participants noted the importance of leaders who promote collaboration, provide resources, and create a culture of teamwork. A social service specialist stated, "When our supervisors encourage teamwork and provide opportunities for interprofessional training and meetings, it fosters a more collaborative environment."

However, a lack of leadership support and organizational barriers were perceived as hindrances to teamwork. A laboratory technician shared, "Sometimes there is a disconnect between the priorities of the organization and the needs of the team. When there is a lack of resources or support from leadership, it becomes challenging to collaborate effectively."

Table 1 summarizes the main themes and subthemes identified in the study.

Table 1. Themes and Subthemes

| Theme | Facilitators | Barriers |
|---------------------------------------|--|--|
| Communication and Information Sharing | - Open, clear, and timely communication - Regular team meetings and updates | - Communication breakdowns - Ineffective information sharing |
| Role Clarity and Understanding | - Clear role delineation - Shared understanding of each team member's | - Role ambiguity - Lack of understanding of other team members' |

| | responsibilities | contributions |
|---------------------------------------|--|---|
| Workload and Staffing | - Adequate staffing levels - Manageable workloads | - Heavy workloads - Inadequate staffing |
| Interpersonal Relationships and Trust | - Mutual respect - Open communication - Supportive team environment | - Conflicts - Power dynamics - Lack of trust |
| Leadership and Organizational Support | - Supportive leadership - Organizational practices that promote collaboration | - Lack of leadership support - Organizational barriers |

DISCUSSION

This qualitative study explored the perceptions of social service specialists, laboratory technicians, nursing technicians, and x-ray technicians on the barriers and facilitators to effective teamwork in healthcare settings. The findings highlight the importance of effective communication, role clarity, manageable workloads, positive interpersonal relationships, and supportive leadership in promoting collaboration among diverse healthcare professionals.

The identified themes are consistent with previous research on teamwork in healthcare settings. Effective communication and information sharing have been recognized as essential components of collaborative practice (Gluyas, 2015). Clear role delineation and a shared understanding of each team member's responsibilities have been found to facilitate teamwork (Suter et al., 2009). Adequate staffing levels and manageable workloads have been associated with better teamwork and patient outcomes (Welp & Manser, 2016). Positive interpersonal relationships and trust among team members have been identified as key enablers of collaboration (Salas et al., 2015). Supportive leadership and organizational practices have been found to foster a culture of teamwork (West & Lyubovnikova, 2013).

The findings of this study also provide insights into the unique experiences and perspectives of social service specialists, laboratory technicians, nursing technicians, and x-ray technicians. These professionals play critical roles in healthcare teams, yet their voices are often underrepresented in the literature on interprofessional collaboration. By exploring their perceptions, this study contributes to a more comprehensive understanding of the factors that influence teamwork among diverse healthcare professionals.

The implications of these findings are significant for healthcare organizations and policymakers. To promote effective teamwork, strategies should be implemented to enhance communication, clarify roles, optimize workload distribution, foster positive team dynamics, and provide leadership support. This may involve establishing regular team meetings, providing interprofessional training opportunities, ensuring adequate staffing levels, promoting a culture of mutual respect, and allocating resources for collaborative initiatives.

However, this study has some limitations that should be acknowledged. The small sample size and the inclusion of participants from a single healthcare system may limit the generalizability of the findings. Future research should aim to include a larger and more diverse sample of healthcare professionals from various settings. Additionally, the reliance on self-reported data may be subject to social desirability bias, where participants may have provided responses that they perceived as socially acceptable. Observational studies could provide a more objective assessment of teamwork dynamics in healthcare settings.

Despite these limitations, this study provides valuable insights into the barriers and facilitators to effective teamwork among social service specialists, laboratory technicians, nursing technicians, and x-ray technicians. The findings can inform the development of targeted interventions and policies to enhance collaboration and improve patient care. Further research is needed to explore the effectiveness of these interventions and to examine the impact of teamwork on patient outcomes and healthcare quality.

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