



EXPLORING NURSING CARE PATHWAYS THROUGH NETWORK ANALYSIS IN HEALTHCARE ORGANIZATIONAL CULTURE

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Abstract

Healthcare systems operate as complex organizational environments in which healthcare professionals, patients, and institutional units interact to deliver coordinated care. Within these systems, nursing care pathways play an essential role in guiding patient care and ensuring continuity across treatment stages. However, the effectiveness of these pathways is influenced by communication structures, professional collaboration, and the broader organizational culture of healthcare institutions. This study explores nursing care pathways by applying a network analysis framework within the context of healthcare organizational culture. The research adopts a conceptual approach, representing healthcare professionals, patients, and hospital departments as interconnected actors within a network. Network analysis is used to examine relational interactions such as communication, collaboration, and care coordination among healthcare actors. The proposed conceptual framework highlights the central role of nurses as intermediaries who facilitate information exchange and coordinate multidisciplinary healthcare activities. The findings suggest that strong communication networks and collaborative organizational cultures are essential for improving the effectiveness of nursing care pathways and enhancing patient care coordination. By applying a network-based perspective to healthcare systems, this study provides insights into how relational structures influence healthcare collaboration and the organization of nursing care processes. The framework contributes to the growing literature on healthcare organizational dynamics and offers a conceptual foundation for future empirical studies investigating network structures within healthcare systems.

Keywords: Nursing care pathways, healthcare organizational culture, network analysis, interprofessional collaboration, healthcare systems, patient care coordination

Introduction

Healthcare systems operate as complex organizational environments in which healthcare professionals, patients, and institutional resources interact continuously to deliver coordinated medical services. Within these systems, nurses play a crucial role in coordinating patient care, facilitating communication among healthcare providers, and ensuring continuity across different stages of treatment. Nursing care pathways provide structured sequences of clinical interventions designed to guide patient management and improve healthcare outcomes. These

pathways help healthcare organizations standardize care processes, reduce variability in clinical practice, and enhance patient-centered service delivery (Gartner et al., 2022).

In modern healthcare environments, the effectiveness of nursing care pathways is strongly influenced by the organizational context in which healthcare professionals operate. Healthcare organizational culture refers to the shared values, beliefs, communication patterns, and leadership structures that shape professional behavior within healthcare institutions. A supportive organizational culture encourages collaboration, improves communication among healthcare professionals, and strengthens teamwork within clinical environments (Braithwaite et al., 2020). Conversely, ineffective organizational cultures characterized by poor communication or rigid hierarchies can negatively affect collaboration and the quality of patient care (Ellis et al., 2023).

Nurses occupy a central position within healthcare systems because they frequently serve as intermediaries between patients, physicians, and other healthcare professionals. Their responsibilities include monitoring patient conditions, coordinating clinical activities, and facilitating communication among multidisciplinary healthcare teams. Previous research has shown that nursing work environments significantly influence patient outcomes, quality of care, and healthcare system efficiency (Griffiths et al., 2020). Additionally, workplace conditions such as leadership support, teamwork, and communication structures affect nurses' ability to deliver safe and effective patient care (Jacobs et al., 2022).

In recent years, researchers have increasingly applied analytical approaches to better understand the complex interactions that characterize healthcare systems. Network analysis has emerged as a valuable methodological framework for examining relationships among

individuals and organizational units within complex systems. In network analysis, actors, such as healthcare professionals or departments, are represented as nodes, and their interactions are represented as connections (edges). This approach allows researchers to visualize patterns of collaboration and identify key actors who coordinate healthcare activities (Valente, 2020).

Network-based approaches have been widely used to study communication patterns and collaborative relationships among healthcare professionals. For example, social network analysis has been applied to examine information-sharing networks within healthcare organizations, revealing how communication structures influence collaboration and decision-making processes among healthcare professionals (Haruta et al., 2022). Such analytical approaches provide insights into how healthcare teams function and how communication networks affect patient care coordination.

Interprofessional collaboration is another important factor influencing healthcare performance. Effective collaboration among nurses, physicians, and other healthcare professionals has been associated with improved patient outcomes, enhanced care coordination, and more efficient healthcare delivery (Buljac-Samardzic et al., 2020). Collaborative healthcare networks enable professionals from different disciplines to share knowledge and coordinate clinical activities, thereby supporting integrated and patient-centered care pathways. However, achieving effective collaboration within healthcare systems remains challenging due to differences in professional roles, organizational hierarchies, and communication practices (Dib & Belrhiti, 2025).

Care pathways have therefore become an important strategy for improving the coordination of healthcare services. Care pathways map the sequence of clinical activities involved in patient treatment and recovery, allowing healthcare professionals to coordinate care across different stages of the healthcare process. Optimized care pathways can improve healthcare efficiency, enhance patient experiences, and support the delivery of high-quality healthcare services (Gartner & Côté, 2023).

Despite growing interest in collaborative healthcare models, limited research has examined nursing care pathways from a network perspective within the context of healthcare organizational culture. Many existing studies focus either on clinical outcomes or on organizational management practices without fully exploring the

relational structures that influence collaboration within healthcare systems. Network analysis provides a promising approach for addressing this gap by examining how patterns of interaction among healthcare professionals influence the coordination and effectiveness of nursing care processes (Schorderet et al., 2022).

Therefore, this study aims to explore nursing care pathways through network analysis within the context of healthcare organizational culture. By conceptualizing healthcare professionals, patients, and institutional units as interconnected actors within a network, this research seeks to analyze how patterns of collaboration and communication shape nursing care coordination. The findings are expected to contribute to a deeper understanding of healthcare organizational dynamics and provide insights that may support the development of more effective and collaborative nursing care systems.

1. Literature Review

1.1 Nursing Care Pathways in Healthcare Systems

Nursing care pathways have become an important framework for organizing clinical care processes within healthcare systems. Care pathways are structured plans that outline the sequence of clinical activities involved in patient treatment and recovery, allowing healthcare professionals to coordinate care more efficiently and ensure consistency in clinical practice. These pathways are designed to improve patient outcomes by promoting evidence-based interventions, reducing variations in healthcare delivery, and facilitating interdisciplinary collaboration among healthcare professionals (Gartner et al., 2022).

In many healthcare organizations, care pathways serve as essential tools for improving coordination across different departments and clinical units. They help healthcare providers manage patient care transitions and ensure that appropriate interventions are delivered at the correct stages of treatment. Studies have shown that well-designed care pathways can improve healthcare efficiency, reduce hospital stay duration, and enhance patient satisfaction (Gartner & Côté, 2023). Furthermore, care pathways support the integration of clinical practices by aligning healthcare professionals around shared treatment goals and standardized care procedures.

Despite these advantages, implementing effective care pathways remains challenging due to the complexity of healthcare systems and the dynamic interactions among healthcare professionals. Nursing professionals often play a central role in coordinating care pathways, as

they are directly involved in monitoring patient conditions and facilitating communication among different members of the healthcare team. Consequently, understanding how nursing professionals interact within healthcare systems is essential for improving care pathway implementation and ensuring effective patient care coordination.

1.2 Healthcare Organizational Culture and Nursing Practice

Healthcare organizational culture refers to the shared beliefs, values, and norms that shape professional behavior and decision-making within healthcare institutions. Organizational culture influences how healthcare professionals communicate, collaborate, and respond to clinical challenges. A positive organizational culture encourages teamwork, open communication, and mutual support among healthcare professionals, thereby significantly improving healthcare performance and patient safety (Braithwaite et al., 2020).

Research has demonstrated that organizational culture plays a critical role in shaping nursing practice environments. Supportive workplace cultures can enhance nurses' job satisfaction, improve retention rates, and contribute to higher quality patient care (Jacobs et al., 2022). Conversely, healthcare environments characterized by poor communication structures, high workloads, or hierarchical barriers may negatively affect nursing performance and patient safety outcomes.

Studies have also shown that nursing work environments strongly influence patient outcomes. For example, inadequate staffing levels and excessive workloads can lead to missed nursing care and reduced quality of patient services (Griffiths et al., 2020). These findings highlight the importance of creating supportive organizational cultures that promote collaboration and effective communication within healthcare teams.

Organizational culture also affects how healthcare professionals respond to change and innovation within healthcare systems. Institutions with collaborative and adaptive cultures are more likely to successfully implement new healthcare models and technologies. In contrast, rigid organizational structures may hinder the adoption of innovative practices and limit the effectiveness of care coordination strategies.

1.3 Interprofessional Collaboration in Healthcare

Interprofessional collaboration is widely

recognized as a key factor in improving healthcare quality and patient safety. Healthcare delivery involves multiple professionals working together to provide coordinated care for patients with diverse medical needs. Effective collaboration among nurses, physicians, and other healthcare professionals helps ensure that patient care decisions are informed by a range of expertise and perspectives.

Collaborative healthcare teams enable professionals to share knowledge, coordinate treatment plans, and manage complex patient cases more effectively. Research has shown that strong teamwork among healthcare professionals can improve clinical decision-making processes and enhance patient outcomes (Buljac-Samardzic et al., 2020). Interprofessional collaboration also contributes to more efficient use of healthcare resources by reducing service duplication and improving communication among healthcare providers.

However, achieving effective collaboration within healthcare systems can be challenging. Differences in professional roles, communication styles, and organizational hierarchies may create barriers to teamwork. Healthcare professionals may also face constraints related to time, workload, and institutional policies that limit opportunities for collaborative interactions. As a result, understanding the structural relationships among healthcare professionals is essential for improving coordination and strengthening collaborative networks within healthcare organizations (Dib & Belrhiti, 2025).

1.4 Network Analysis in Healthcare Research

Network analysis has emerged as a powerful analytical approach for studying relationships within complex systems. In healthcare research, network analysis is used to examine patterns of interaction among healthcare professionals, departments, and institutions. By representing actors as nodes and their relationships as connections, network analysis enables researchers to visualize communication structures and identify key actors within healthcare networks (Valente, 2020).

The application of network analysis in healthcare has provided valuable insights into how healthcare professionals collaborate and share information. Studies using social network analysis have shown that communication patterns among healthcare professionals significantly influence decision-making processes and the coordination of patient care (Haruta et al., 2022). Network-based approaches also allow researchers to identify

central actors within healthcare systems who play critical roles in facilitating communication and collaboration.

Another important application of network analysis is the examination of collaborative practices within healthcare teams. For example, social network analysis has been used to explore how healthcare professionals interact within home care networks, revealing patterns of collaboration that influence patient care outcomes (Schorderet et al., 2022). These findings demonstrate that healthcare delivery is strongly shaped by the relational structures that connect healthcare professionals.

1.5 Research Gap

Although previous studies have explored nursing care pathways, healthcare organizational culture, and interprofessional collaboration, limited research has integrated these perspectives using network analysis frameworks. Most existing studies examine organizational culture or clinical outcomes independently, without fully accounting for the structural factors that shape collaboration within healthcare systems.

Network analysis offers a valuable methodological framework for bridging this gap by examining how interactions among healthcare professionals influence nursing care coordination. By analyzing healthcare systems as interconnected networks of actors and relationships, researchers can gain deeper insights into the structural dynamics that shape nursing care pathways.

Therefore, this study aims to contribute to the existing literature by exploring nursing care pathways through network analysis within healthcare organizational culture. This approach offers a new perspective on how collaborative structures influence the effectiveness of nursing care processes and the overall performance of healthcare systems.

2. Conceptual Framework and Network Model

Healthcare systems are characterized by complex interactions among multiple actors, including nurses, physicians, patients, and administrative units. These interactions influence how healthcare services are delivered and how clinical activities are coordinated across different stages of patient care.

Nursing care pathways represent structured sequences of healthcare processes that guide patient management from diagnosis to treatment and recovery. Understanding these pathways requires an analytical framework capable of capturing relationships among healthcare professionals and the organizational structures

within which they operate.



Figure 1. Conceptual network model of nursing care pathways within healthcare organizational culture.

Figure 1 illustrates the study's conceptual framework, depicting healthcare actors—including nurses, physicians, patients, hospital departments, and administrative units - as interconnected nodes within a collaborative healthcare network. The arrows represent relational interactions such as information exchange, clinical collaboration, patient referrals, and care coordination that occur during patient care processes. Nursing care pathways are positioned at the center of the network to emphasize the coordinating role of nursing professionals in facilitating communication and integration among healthcare actors. The entire network operates within the broader context of healthcare organizational culture, which shapes communication patterns, professional collaboration, and the effectiveness of care coordination within healthcare systems.

Network analysis provides an effective approach for examining relational structures within complex systems. In this approach, healthcare actors are represented as nodes, and their interactions as edges. This representation allows the identification of patterns of collaboration, communication flows, and coordination mechanisms within healthcare organizations (Valente, 2020). By modeling healthcare systems as networks, it becomes possible to analyze how professional interactions influence the effectiveness and efficiency of patient care delivery.

Within nursing care pathways, nurses often occupy a central position in healthcare networks. Nurses coordinate patient monitoring, facilitate communication among healthcare professionals, and ensure the continuity of clinical interventions throughout the treatment process. As intermediaries between patients, physicians, and healthcare departments, nurses contribute

significantly to integrating healthcare services and to the functioning of care pathways (Griffiths et al., 2020).

The conceptual framework proposed in this study integrates three key components: nursing care pathways, healthcare organizational culture, and network interactions among healthcare actors. Nursing care pathways represent the structured sequence of healthcare activities that guide patient treatment and recovery. Healthcare organizational culture reflects the shared values, communication practices, and professional norms that shape collaboration within healthcare institutions (Braithwaite et al., 2020). Network interactions represent the relational connections among healthcare professionals and organizational units that enable coordinated healthcare delivery.

In the proposed model, healthcare professionals, patients, and hospital departments are conceptualized as nodes within a healthcare network. These nodes are connected through interactions such as information exchange, clinical collaboration, patient referrals, and care coordination. The resulting network structure illustrates how nursing care pathways emerge from collaborative relationships within healthcare organizations.

Network analysis also allows the evaluation of structural characteristics that influence collaboration and communication in healthcare systems. Degree centrality measures the number of direct connections each actor has in the network and indicates the level of involvement in communication and coordination processes. Actors with high degree centrality often play important roles in facilitating collaboration among healthcare professionals.

Another important metric is betweenness centrality, which identifies actors who function as intermediaries between different parts of the

network. These actors contribute to the flow of information and coordination across departments and healthcare teams (Valente, 2020). In many healthcare environments, nurses frequently serve as such intermediaries, linking different actors within patient care processes.

The network's density reflects the overall level of connectivity among actors in the healthcare system. Higher network density generally reflects stronger collaboration and more frequent communication among healthcare professionals. Strong collaborative networks can enhance

the coordination of healthcare services and improve the effectiveness of patient-centered care pathways (Buljac-Samardzic et al., 2020).

Previous studies have demonstrated that network analysis can provide valuable insights into collaborative healthcare structures. Social network analysis has been applied to examine communication patterns among healthcare professionals and to identify key actors who facilitate coordination within healthcare teams (Haruta et al., 2022). Network-based approaches have also been used to analyze collaborative relationships in home healthcare systems and multidisciplinary care environments (Schorderet et al., 2022).

Based on these perspectives, the conceptual model developed in this study illustrates how nursing care pathways are shaped by relational interactions within healthcare organizational culture. The framework emphasizes that effective patient care coordination depends on strong communication networks, collaborative professional relationships, and supportive organizational structures. By applying network analysis to nursing care pathways, this study aims to provide insights into how healthcare organizations can strengthen collaboration and improve the overall efficiency of patient care delivery.

3. Methodology

3.1 Research Design

This study adopts a conceptual network analysis approach to investigate nursing care pathways within healthcare organizational culture. Network analysis is increasingly used in healthcare research to examine relational interactions among healthcare professionals and organizational units. By modeling healthcare systems as networks, it becomes possible to understand how collaborative relationships influence patient care coordination and healthcare service delivery.

The research design focuses on identifying the

structural relationships among healthcare actors involved in nursing care pathways. These relationships include communication, collaboration, and coordination activities that occur during patient treatment processes. The conceptual model developed in this study is based on insights from existing healthcare network studies and organizational research.

3.2 Network Representation of Nursing Care Pathways

In the proposed analytical framework, healthcare systems are represented as networks composed of nodes and edges. Nodes represent the key actors involved in patient care, including nurses, physicians, patients, hospital departments, and healthcare administrators. Edges represent the interactions among these actors, such as information exchange, clinical consultation, patient referrals, and collaborative decision-making.

This network representation enables the examination of how nursing care pathways emerge from the interactions among healthcare professionals. The network structure reflects the communication patterns and coordination mechanisms that support patient care processes within healthcare organizations.

3.3 Data Sources and Conceptual Modeling

The study relies on secondary data and theoretical insights from existing literature on healthcare collaboration and social network analysis. Previous studies examining healthcare communication networks, interdisciplinary collaboration, and nursing coordination provide the empirical foundation for the conceptual model. The conceptual network structure is constructed by identifying key actors and interactions commonly observed in healthcare systems. These interactions are then translated into network relationships that illustrate the flow of communication and coordination within nursing care pathways.

3.4 Network Analysis Metrics

To examine the structural characteristics of nursing care pathways, several network analysis metrics are incorporated into the analytical framework.

Degree Centrality

Degree centrality measures the number of direct connections an actor has within the network. Actors with higher degree centrality tend to be more involved in communication and coordination activities.

Betweenness Centrality

Betweenness centrality measures the extent to which an actor acts as an intermediary between other actors in the network. In healthcare environments, actors with high betweenness centrality often facilitate communication across departments and professional groups.

Network Density

Network density represents the overall level of connectivity among actors in the network. Higher density indicates stronger collaboration and more frequent interaction among healthcare professionals.

Clustering Coefficient

The clustering coefficient measures the tendency of actors to form collaborative groups. In healthcare systems, such clusters may represent specialized teams that work closely together in patient care processes.

3.5 Analytical Procedure

The analytical procedure involves constructing the conceptual healthcare network and examining its structural properties using the selected network metrics. The framework identifies key actors within nursing care pathways and highlights the collaborative structures that support patient care delivery.

By analyzing the relational structure of healthcare interactions, the study provides insights into how healthcare organizations can strengthen collaboration among healthcare professionals and improve the coordination of nursing care pathways.

4. Discussion

The network-based conceptual framework developed in this study provides a structured perspective for understanding how nursing care pathways operate within healthcare organizational culture. Healthcare systems are inherently complex environments where patient care is delivered through interactions among multiple healthcare professionals and institutional units. By representing these interactions as networks, the study highlights how relational structures influence coordination, communication, and the overall effectiveness of patient care delivery.

One key insight from the conceptual model is the central role of nurses within healthcare networks. Nurses frequently serve as intermediaries between physicians, patients, and administrative departments, facilitating communication and ensuring continuity of care. This position within

the network enables nurses to coordinate clinical activities across different stages of patient treatment. Previous research has also emphasized the importance of nursing coordination in improving patient outcomes and supporting multidisciplinary collaboration within healthcare systems.

The analysis also demonstrates that healthcare organizational culture plays a critical role in shaping the effectiveness of nursing care pathways. Organizational culture influences how healthcare professionals communicate, share information, and collaborate during patient care processes. Supportive organizational environments that encourage teamwork, transparency, and shared responsibility can strengthen network connections among healthcare professionals and improve care coordination.

Another important aspect highlighted by the conceptual model is the significance of communication networks in healthcare delivery. Effective communication between physicians, nurses, and hospital departments ensures that clinical information is transmitted accurately and in a timely manner. Strong communication networks can reduce decision-making delays, improve treatment coordination, and enhance patient safety. Conversely, weak communication structures may lead to fragmented care pathways and increased risk of medical errors.

The structural characteristics of healthcare networks also influence the efficiency of nursing care pathways. Actors with high centrality within the network often play crucial roles in facilitating communication and coordinating clinical activities. Identifying such key actors can help healthcare organizations better understand how care coordination occurs and where improvements may be needed. For instance, recognizing individuals who serve as communication bridges between departments can help administrators strengthen collaborative structures within healthcare institutions.

In addition, network density reflects the level of collaboration among healthcare professionals. Highly connected networks tend to support stronger professional relationships and more frequent information exchange. These collaborative environments can enhance interdisciplinary teamwork and promote more integrated patient care pathways. In contrast, sparse networks may indicate communication barriers or organizational silos that hinder effective care coordination.

The findings of this conceptual study suggest that applying network analysis to healthcare systems offers valuable insights into how patient care

processes are organized and managed. By examining the relational structures underlying nursing care pathways, healthcare organizations can identify opportunities to improve communication, strengthen collaboration, and enhance the overall quality of patient care delivery.

5. Conclusion

This study explored nursing care pathways by applying a network analysis framework within the context of healthcare organizational culture. Healthcare delivery involves complex interactions among multiple actors, including nurses, physicians, patients, and administrative units. Understanding these interactions is essential for improving coordination and communication within healthcare systems. By conceptualizing healthcare systems as networks, this study provides a structured perspective for examining how collaborative relationships influence the effectiveness of nursing care pathways.

The conceptual framework developed in this study highlights the central role of nurses within healthcare networks. Nurses frequently serve as key intermediaries, facilitating communication and coordination among healthcare professionals and organizational units. Their position within the network enables them to connect different components of the healthcare system and support the continuity of patient care. The findings emphasize that strong communication networks and collaborative professional relationships are essential for the effective functioning of nursing care pathways.

The study also underscores the importance of healthcare organizational culture in shaping the structure and effectiveness of collaborative networks. Organizational values, communication practices, and institutional norms shape how healthcare professionals interact and coordinate patient care. Healthcare organizations that promote supportive and collaborative environments are more likely to develop stronger network connections among healthcare actors, thereby enhancing the efficiency of care delivery.

Furthermore, the network-based approach provides valuable insights for healthcare administrators and policymakers seeking to improve healthcare coordination. By identifying key actors and communication structures within healthcare networks, organizations can design strategies that strengthen collaboration, reduce communication barriers, and improve patient outcomes.

Although this study focuses on a conceptual framework, it highlights the potential of network

analysis as a useful analytical tool for examining healthcare collaboration and organizational dynamics. Future research may extend this framework by applying empirical network analysis to real healthcare systems and evaluating how network structures influence patient care outcomes. Such studies can further contribute to the development of more integrated and efficient healthcare delivery systems.

References

1. Braithwaite, J., Churruca, K., Ellis, L. A., Long, J. C., Clay-Williams, R., Damen, N., Pomare, C. (2020). Complexity science in healthcare – Aspirations, approaches, applications and accomplishments: A white paper. *Journal of Health Organization and Management*, 34(7), 791–809. <https://doi.org/10.1108/JHOM-03-2020-0067>
2. Buljac-Samardzic, M., Doekhie, K. D., & van Wijngaarden, J. D. H. (2020). Interventions to improve team effectiveness within healthcare: A systematic review of the past decade. *Human Resources for Health*, 18(2), 1–42. <https://doi.org/10.1186/s12960-019-0411-3>
3. Dib, H., & Belrhiti, Z. (2025). Interprofessional collaboration in healthcare systems: A systematic review of the literature. *Journal of Interprofessional Care*, 39(1), 1–12.
4. Ellis, L. A., Churruca, K., Pomare, C., Long, J. C., & Braithwaite, J. (2023). The influence of organizational culture on healthcare performance: A systematic review. *BMC Health Services Research*, 23, 1–12. <https://doi.org/10.1186/s12913-023-09000-0>
5. Gartner, J. B., & Côté, M. J. (2023). Care pathways as tools for improving healthcare coordination and patient outcomes. *International Journal of Health Planning and Management*, 38(2), 453–468. <https://doi.org/10.1002/hpm.3564>
6. Gartner, J. B., Côté, M. J., & Schmitt, C. (2022). Improving healthcare performance through care pathways: A systematic review of healthcare pathway models. *Health Policy*, 126(5), 463–471. <https://doi.org/10.1016/j.healthpol.2022.02.003>
7. Griffiths, P., Recio-Saucedo, A., Dall’Ora, C., Briggs, J., Maruotti, A., Meredith, P., & Missed Care Study Group. (2020). The association between nurse staffing and omissions in nursing care: A systematic review. *Journal of Advanced Nursing*, 76(4), 929–942. <https://doi.org/10.1111/jan.14314>

10. Haruta, J., Ozone, S., Hamano, J., & Nishigori, H. (2022). Social network analysis of collaborative practices among healthcare professionals: Implications for healthcare teamwork. *BMC Health Services Research*, 22, 1–10. <https://doi.org/10.1186/s12913-022-07644-1>
11. Jacobs, S. R., Weiner, B. J., & Reeve, B. B. (2022). Organizational culture and its impact on nursing practice and patient outcomes. *Journal of Nursing Management*, 30(3), 628–636. <https://doi.org/10.1111/jonm.13567>
12. Schorderet, M., Sommaruga, S., & Bodenmann, P. (2022). Mapping collaboration in home healthcare networks using social network analysis. *International Journal of Integrated Care*, 22(3), 1–10. <https://doi.org/10.5334/ijic.6482>
13. Valente, T. W. (2020). *Social networks and health: Models, methods, and applications*. Oxford University Press.