



Telehealth Challenges in Nursing: A Narrative Review

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ABSTRACT

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Background: Telehealth, employing technology such as Internet-based video, live chat, or telephone, has become essential for enhancing healthcare accessibility and cost-effectiveness. Despite its benefits, telehealth adoption faces challenges, particularly among nurses. This narrative review investigates the specific challenges nurses encounter with telehealth, focusing on a lack of training and resistance to change.

Methods: The review analyzed literature from Web of Science, PubMed, ScienceDirect, and Google Scholar. A narrative review methodology was used, whereby the retrieved studies were thematically synthesized to address the review's aim.

Results: The search yielded eight primary studies. Findings of the narrative synthesis reveal that inadequate training is a significant barrier, with nurses often lacking the time and resources to engage in telehealth training. Additionally, resistance to change, influenced by workflow interruptions and discomfort with being monitored, further hampers adoption.

Recommendations: Recommendations include addressing nursing understaffing, integrating telehealth education into nursing curricula, and developing tailored training programs. Future research should focus on nurses' unique perspectives and test interventions to address identified challenges. Understanding and addressing these barriers can enhance telehealth integration in nursing, ultimately improving healthcare delivery.

KEYWORDS:

Telehealth, nursing, employing technology

BACKGROUND

Telehealth refers to using technology, such as Internet-based video, live chat, or telephone, to effectively connect individuals and their healthcare providers when physical care is impossible or unnecessary (American Telemedicine Association, 2020). It is becoming indispensable because it significantly improves access to healthcare, it is cost-effective, and the consumer demand is growing on top of the fact that the quality of healthcare delivered virtually has comparable quality to that delivered in a physical mode (American Telemedicine Association, 2020; Ben-Assuli, 2022; Hoffman, 2020; Niu et al., 2024).

Even so, telehealth adoption continues to experience a wide range of challenges, including a lack of training and consumers lacking confidence in the quality of healthcare

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services offered via telehealth means (Haimi et al., 2024; Jonasdottir et al., 2022). In developed nations, the general population enjoys adequate access to fast Internet connections and smartphones that can be used for virtual appointments, medical consultations, and ordering medications (Penn & Laron, 2023). Currently, most people use telehealth for medical appointments, and only a few use it for medical consultations and ordering of medications, among other advanced uses of telehealth, primarily due to a lack of awareness (Dopelt et al., 2021; Penn & Laron, 2023).

Moreover, many studies have investigated the challenges and opportunities offered by telehealth (Jonasdottir et al., 2022). However, many of these studies utilize a sample of healthcare professionals, including physicians, nurses, and others, within a single study, making it challenging to filter out the distinctive voices of nurses. It is essential to understand nurses' perspectives regarding the challenges of telehealth to tailor telehealth training programs to their specific needs.

This narrative review aims to review previous research to determine the specific challenges experienced by

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nurses when delivering telehealth services. The following databases and platforms were searched for the reviewed literature: Web of Science, PubMed, ScienceDirect, and Google Scholar.

NURSES' TELEHEALTH CHALLENGES

LACK OF TELEHEALTH TRAINING

Lack of telehealth training remains a significant barrier to telehealth adoption among nurses. While investigating differences in telehealth perceptions between nurses and non-nurse clinicians, Bagot et al. (2020) noted that 36% of the surveyed nurses expressed the need for postimplementation training compared to 14% of non-nurse clinicians. Since they are busy with their schedules, nurses also do not find sufficient time to engage in training (Bagot et al., 2020). A qualitative study by Allison et al. (2023) revealed a lack of access to training. This issue culminates in technical problems (audio and video) frequently experienced and reported by telehealth nurses (Kleinpell et al., 2016). The role of telehealth training was also emphasized in a qualitative study conducted by Moeckli et al. (2013). Although they used a sample of various healthcare professionals, a close look into the interview transcripts for nurses reveals that before implementing telehealth in critical care, it is imperative to train nurses and other non-nurse clinicians to boost their understanding and confidence in using telehealth systems (Moeckli et al., 2013). A qualitative study that interviewed 15 telehealth nurses revealed that nurses needed more input and training to reduce their reliance on technical support, which can generally act as a barrier to the adoption of telehealth in nursing (Odeh et al., 2014).

RESISTANCE TO CHANGE

The literature has also reported resistance to change introduced by telehealth to nurses' everyday workflow. For instance, a cross-sectional study by Mullen-Fortino et al. (2012) found that some critical care nurses were hesitant to adopt telehealth because they believed it interrupted their workflow and was intrusive. Some felt that they were being spied on. Interruptions in care and telehealth as an interference have also been reported as significant barriers to nurses' adoption of telehealth in critical care in the United States in a quantitative survey and two-round Delphi study (Kleinpell et al., 2016). Also, Ward et al. (2015) conducted surveys and phone interviews with nurses and found that nurses were generally more resistant than physicians and other providers due to negative attitudes towards telehealth. For example, due to the high workload among nurses, they reported a lot of frustrations due to the amount of time and work spent connecting the telehealth equipment (Ward et al., 2015). Lack of time was also highlighted in another cross-sectional survey study by MacGeorge et al. (2022), who noted that inadequate time due to competing tasks was a significant barrier to telehealth utilization among school nurses providing asthma care. The issue of resistance to change was

also revealed by a qualitative study by Moeckli et al. (2013), whereby it was revealed that nurses' acceptance of telehealth in critical care was also influenced by its impact on existing workflows and the discomfort of being monitored. Apart from the discomfort of being monitored, another qualitative study revealed that another factor that could be contributing to nurses' resistance to using telehealth is their discomfort with being on camera (Allison et al., 2023).

DISCUSSION AND CONCLUSION

This narrative review focused on nurses' unique challenges in using telehealth solutions to deliver services to patients. In general, there are numerous challenges that healthcare providers experience when using telehealth solutions, but little is known about the unique experiences of nurses. The review addressed this gap, whereby two unique challenges were identified: lack of telehealth training and resistance to change. These findings are consistent with a systematic review by Penny et al. (2018), who reviewed nine qualitative studies to explore the experiences of registered nurses and midwives regarding videoconferencing. For example, the authors revealed that organizations faced challenges in having additional nurses rostered to set up equipment, prepare patients, and conduct additional home visits to replace faulty equipment. The observations are akin to lack of time as an antecedent of lack of training and resistance to change (Bagot et al., 2020; MacGeorge et al., 2022; Ward et al., 2015). It is also vital to note that Penny et al.'s (2018) observation about the need for additional nursing staff to meet telehealth provision demands has practical implications. The additional resources can hinder organizations from adopting telehealth for nursing service provision.

To overcome the challenges mentioned above, policies focusing on addressing nursing understaffing can provide relief to organizations often relying on additional nursing staff to implement telehealth. Adequate staffing can also relieve nurses of extra workload, allowing them adequate time to engage in telehealth training. Also, introducing telehealth education should be incorporated into the nursing training curriculum. In this way, nursing students can learn about the importance of using telehealth in the provision of nursing services. It can ultimately improve their positive attitudes and perceptions towards telehealth and significantly reduce resistance to change.

Furthermore, it was noted in this narrative review that a majority of studies still focus on healthcare professionals, including both providers and nurses (Alghamdi et al., 2022; Heyer et al., 2021; Larson et al., 2021; Xu et al., 2021). Although the voice of nurses may be well represented in such studies, the unique perspectives of nurses regarding telehealth may not be well captured. This review ensured that most of the studies reviewed utilized a sample of nurses or at least differentiated nurses' perspectives from those of other healthcare providers. None of the reviewed studies directly

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focused on telehealth challenges among nurses. Rather, most of the studies focused on perceptions of telehealth, revealing barriers and facilitators in the process. There is a need for future studies to directly focus on challenges and nurses' views regarding effective solutions to them. Also, future studies should formulate and test the effectiveness of interventions for addressing identified challenges, such as resistance to change.

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