

Exploring the Lived Experiences of Rural Health Unit Nurses on mWell Telemedicine Platform Utilization in Sitangkai, Tawi-Tawi: A Qualitative Study

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ABSTRACT

This qualitative phenomenological study explored the lived experiences of Rural Health Unit nurses in utilizing the mWell telemedicine platform in Sitangkai, Tawi-Tawi, a geographically isolated island municipality in the southern Philippines. The study examined how telemedicine supported community nursing practice, healthcare access, care continuity, and workforce response in a rural island setting. Using purposive sampling, nine community nurses from the Rural Health Unit of Sitangkai who had used or attempted to use mWell participated in semi-structured interviews. Data were analyzed through Braun and Clarke's six-phase thematic analysis. Findings generated six major themes: mWell as a mechanism for sustaining healthcare delivery; telehealth as a response to geographic isolation; training and competence as determinants of telehealth effectiveness; technical and communication readiness as conditions for quality care; mWell as a bridge for workforce gaps and referral networks; and persistent barriers limiting equitable telehealth access. Results indicate that mWell contributed to continuity of care, reduced travel burden, remote consultation, and referral support. However, its implementation was constrained by unstable connectivity, limited digital infrastructure, inadequate training, digital literacy gaps, and the continued need for face-to-face care in complex cases. The study concludes that mWell is a promising complementary mechanism for rural healthcare delivery, but its effectiveness depends on institutional support, provider readiness, reliable infrastructure, and context-sensitive implementation.

Keywords: Telemedicine, Rural health unit, Community nurses, Qualitative phenomenology, Thematic analysis

INTRODUCTION

Digital health has transformed healthcare delivery, especially in areas where access to facilities is difficult. Telemedicine enables remote communication between patients and providers, making it useful in communities affected by distance, transportation barriers, physician shortages, and fragmented health services. The World Health Organization recognizes digital health as a strategy for strengthening health systems when supported by proper governance, infrastructure, and human resources (World Health Organization, 2021).

In rural and geographically isolated areas, telemedicine can reduce unnecessary travel, support remote consultation, strengthen referrals, and improve access to specialist care when reliable infrastructure and trained personnel are available (Tsou et al., 2021). In Southeast Asia and the Philippines, telehealth expanded during the COVID-19 pandemic, but its implementation remains challenged by weak connectivity, limited devices, insufficient training, and low patient readiness (Macariola et al., 2021).

Community nurses play a central role in the actual implementation of telemedicine. In Rural Health Units, nurses often serve as the first point of patient contact, assist in patient assessment, encode health information, coordinate with physicians, explain digital procedures to patients, and support follow-up care. Their experiences are therefore important in understanding whether telemedicine functions merely as a technological tool or as a practical healthcare support system. In island municipalities such as Sitangkai, Tawi-Tawi, where travel to higher-level facilities may require sea transport, financial resources, and favorable weather conditions, telemedicine may serve as a critical bridge between local patients and remote healthcare providers.

Despite the promise of telehealth, limited qualitative evidence exists on how rural health nurses experience mWell in geographically isolated and disadvantaged areas. Existing studies often focus on urban users, patient satisfaction, or general technology acceptance, with less attention to frontline nurses in low-resource island communities. This study addresses this gap by exploring the lived experiences of Rural Health Unit nurses in Sitangkai, Tawi-Tawi, who use or attempt to use mWell.

OBJECTIVES

This study explored the lived experiences of RHU nurses in using the mWell telemedicine platform, focusing on its contributions to healthcare access, service continuity, referral support, and community nursing practice, as well as the barriers and support needed for effective rural telemedicine implementation.

THEORETICAL FRAMEWORK

This study was guided by the Technology Acceptance Model, which explains technology adoption through perceived usefulness and perceived ease of use (Davis, 1989), and Diffusion of Innovations Theory, which explains adoption through perceived advantage, compatibility, communication, social systems, and implementation support (Rogers, 2003). These frameworks helped interpret how nurses accepted, adapted, and experienced constraints in using mWell within rural island healthcare.

METHODOLOGY

Research Design

The study employed a qualitative phenomenological design to explore the lived experiences of community nurses who use the mWell telemedicine platform. This design was appropriate because it focused on nurses' meanings, perceptions, and practical experiences rather than statistical measurement, recognizing that their experiences were shaped by their professional roles, local healthcare conditions, patient needs, institutional support, and geographic realities.

Research Site and Participants

The study was conducted at the Rural Health Unit of Sitangkai, Tawi-Tawi, an island municipality with limited healthcare access and connectivity challenges. Nine community nurses with direct experience using or attempting to use the mWell platform were selected through purposive criterion-based sampling.

Data Collection

Data were collected through semi-structured interviews on mWell utilization, perceived benefits, service continuity, patient access, barriers, training needs, communication, and referral support. Interviews were conducted face-to-face or remotely, recorded with consent, transcribed, reviewed for accuracy, and translated into English when necessary while preserving contextual meaning.

Data Analysis

Data were analyzed using Braun and Clarke's six-phase thematic analysis: familiarization, coding, theme development, theme review, theme definition, and report writing (Braun & Clarke, 2006). The analysis was iterative and reflexive, with patterns interpreted in relation to the study objectives and theoretical framework. Trustworthiness was supported through member checking, peer debriefing, reflexive journaling, and an audit trail to strengthen credibility, dependability, confirmability, and transferability.

Ethical Considerations

The study adhered to ethical research procedures by obtaining permission, obtaining informed consent, ensuring voluntary participation, and protecting participant anonymity. Participants were informed of the study's purpose, their right to withdraw, and the confidentiality of their responses. No patient-identifying or clinical information was collected, and all data were used solely for academic purposes.

RESULTS AND DISCUSSION

The thematic analysis generated six major themes describing the lived experiences of Rural Health Unit nurses using the mWell telemedicine platform in Sitangkai, Tawi-Tawi. These themes show that mWell served as a practical support mechanism for rural healthcare delivery, but its effectiveness was shaped by infrastructure, training, communication, and contextual readiness.

Theme 1. mWell as a Mechanism for Sustaining Healthcare Delivery

Participants viewed mWell as useful in sustaining healthcare services, especially for follow-up consultations, chronic disease monitoring, and physician advice. Nurses reported that the platform helped continue care when physicians were unavailable on-site or when patients had difficulty traveling to distant facilities.

This finding suggests that telemedicine can extend rural primary care by strengthening nurses' roles in care coordination and patient support. It is consistent with studies showing that telehealth improves continuity of care and reduces access barriers in rural and remote healthcare settings (Tsou et al., 2021).

Theme 2. Telehealth as a Response to Geographic Isolation

This theme shows that mWell helped address Sitangkai's geographic barriers. Participants noted that travel to larger facilities requires time, money, boat transportation, and favorable weather. One nurse stated, "mWell is helpful to the community, especially because we are far from the city." Through mWell, some patients could receive initial advice or follow-up consultation without immediately leaving the municipality.

This finding shows that telemedicine can reduce the burden of distance in island municipalities, where travel also involves cost and weather-related risks. However, its effectiveness still depends on stable connectivity, available equipment, and clear workflows, supporting evidence that telehealth reduces service gaps only when adapted to local infrastructure and community needs (Macariola et al., 2021; Labrique et al., 2020).

Theme 3. Training and Competence Shape Telehealth Effectiveness

Participants emphasized that effective mWell use requires structured training, hands-on practice, troubleshooting support, and familiarity with encoding and consultation procedures. Although nurses recognized the platform's usefulness, limited training undermined their confidence and led to inconsistent adoption.

This finding aligns with the Technology Acceptance Model, which posits that users are more likely to adopt technology when it is perceived as useful and easy to use (Davis, 1989). Thus, the mWell implementation should include continuous capacity building rather than a one-time orientation.

Theme 4. Telehealth Quality Depends on Technical and Communication Readiness

The fourth theme indicates that the quality of care through mWell depended on platform functionality and user readiness. Participants reported unstable connectivity, difficulty uploading patient information, device limitations, and limited technical skills. One participant summarized the concern clearly: "The number one problem is really the Wi-Fi." These issues affected the quality of consultation and led to delays, repeated attempts, and frustration.

Communication readiness was also essential because nurses had to explain the process, manage expectations, translate concerns, and build patient trust. This suggests that rural telemedicine is both technical and relational; therefore, mWell should be supported by clear workflows, culturally appropriate communication, and patient education (Kruse & Heinemann, 2022; Ong et al., 2022).

Theme 5. mWell Helps Bridge Workforce Gaps and Strengthen Referral Networks

Participants described mWell as helpful when physicians were unavailable or when nurses needed additional clinical guidance. The platform allowed nurses to connect patients with doctors and specialists, thereby strengthening referral support. This was particularly important in Sitangkai, where the availability of healthcare professionals and access to higher-level facilities may be limited.

This theme shows that mWell helped compensate for health workforce gaps by improving communication between the Rural Health Unit and external providers. However, the platform did not replace the need for physicians, nurses, and referral facilities. Instead, it functioned as a bridge within a constrained healthcare system. This finding is consistent with regional evidence showing that maldistribution of health workers remains a persistent challenge in Southeast Asia, particularly in rural areas (Kanchanachitra et al., 2011).

Theme 6. Persistent Barriers Limit Equitable Telehealth Access

Despite its benefits, mWell was limited by poor connectivity, limited access to devices, an unstable power supply, low digital literacy, financial constraints, language barriers, and a preference for face-to-face care. Nurses also noted that complex and emergency cases still require direct clinical assessment. Thus, telemedicine should be viewed as a complementary service, not a full replacement for in-person care, and must be supported by RHU workflows, referral systems, community education, and infrastructure investment.

Synthesis of Findings

The findings show that mWell has strong potential to improve rural healthcare delivery in Sitangkai by supporting remote consultation, sustaining care, reducing travel burden, and addressing physician shortages. However, its effectiveness depends on stable connectivity, adequate devices, training, technical support, patient readiness, and clear protocols.

The study also highlights nurses as active mediators between patients, technology, physicians, and the local health system. Thus, effective mWell utilization requires not only platform availability but also institutional readiness, workforce preparation, and policy support suited to geographically isolated communities.

CONCLUSION

This study concludes that the mWell telemedicine platform served as a practical support mechanism for Rural Health Unit nurses in Sitangkai, Tawi-Tawi. It contributed to healthcare sustainability by supporting follow-up care, reducing unnecessary travel, improving access to remote consultation, and strengthening referral links with physicians and specialists. However, its effectiveness was constrained by poor connectivity, limited infrastructure, inadequate training, digital literacy gaps, language and communication barriers, and the continued need for face-to-face consultation in complex cases. Telemedicine in Sitangkai should therefore be understood not as a replacement for traditional healthcare delivery but as a complementary

system that can strengthen rural primary care when supported by reliable infrastructure, trained personnel, clear protocols, and community readiness.

RECOMMENDATIONS

1. Provide regular hands-on telehealth training for RHU nurses.
2. Improve connectivity, devices, backup power, and technical support.
3. Establish clear protocols for teleconsultation, referral, follow-up, and escalation.
4. Conduct community orientation on telemedicine use and patient readiness.
5. Integrate mWell into local health programs and GIDA referral systems.
6. Conduct broader studies on satisfaction, outcomes, failed transactions, efficiency, and cost benefits.

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AI DECLARATION STATEMENT

AI tools were used only for grammar refinement, formatting, and manuscript organization. The data, analysis, interpretation, and conclusions remain the sole responsibility of the author.

REFERENCES

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity*, 56, 1391-1412. <https://doi.org/10.1007/s11135-021-01182-y>
- Cabatbat, K. P. M. (2022). Telemedicine: Keeping patients safe during pandemic. *Journal of Public Health*, 44(3), e429-e430. <https://doi.org/10.1093/pubmed/fdab273>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Kanchanachitra, C., et al. (2011). Human resources for health in Southeast Asia: Shortages, distributional challenges, and international trade in health services. *The Lancet*, 377(9767), 769-781. [https://doi.org/10.1016/S0140-6736\(10\)62035-1](https://doi.org/10.1016/S0140-6736(10)62035-1)
- Kruse, C., & Heinemann, K. (2022). Facilitators and barriers to the adoption of telemedicine during the first year of COVID-19: Systematic review. *Journal of Medical Internet Research*, 24(1), e31752. <https://doi.org/10.2196/31752>

- Labrique, A., Agarwal, S., Tamrat, T., & Mehl, G. (2020). WHO digital health guidelines: A milestone for global health. *npj Digital Medicine*, 3, 120. <https://doi.org/10.1038/s41746-020-00330-2>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.
- Macariola, A. D., Santarin, T. M. C., Villaflor, F. J. M., & Tan, M. J. T. (2021). Breaking barriers amid the pandemic: The status of telehealth in Southeast Asia and its potential as a mode of healthcare delivery in the Philippines. *Frontiers in Pharmacology*, 12, 754011. <https://doi.org/10.3389/fphar.2021.754011>
- Ong, A. K. S., Kurata, Y. B., Castro, S. A. D. G., & Tomines, A. P. J. (2022). Factors influencing the acceptance of telemedicine in the Philippines. *Technology in Society*, 70, 102040. <https://doi.org/10.1016/j.techsoc.2022.102040>
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
- Tsou, C., Robinson, S., Boyd, J., Jamieson, A., et al. (2021). Effectiveness of telehealth in rural and remote emergency departments: Systematic review. *Journal of Medical Internet Research*, 23(11), e30632. <https://doi.org/10.2196/30632>
- World Health Organization. (2021). *Global strategy on digital health 2020–2025*. World Health Organization.