

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20254319>

Review Article

## Telehealth in maternity care: benefits, barriers, and the future of digital maternity care: a narrative review

Neha Ali<sup>1\*</sup>, Sheeba Philip<sup>2</sup>, Deepika Rawat<sup>1</sup>

<sup>1</sup>Department of Obstetrics and Gynecological Nursing, Sai College of Nursing, Dehradun, Uttarakhand, India

<sup>2</sup>Department of Medical Surgical Nursing, Sai College of Nursing, Dehradun, Uttarakhand, India

**Received:** 25 November 2025

**Accepted:** 16 December 2025

**\*Correspondence:**

Neha Ali,

E-mail: [nehaa6065@gmail.com](mailto:nehaa6065@gmail.com)

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

### ABSTRACT

Telehealth is emerging as a vital tool in maternity care, supporting pregnant women and their families through remote healthcare services, it creates new opportunities to provide continuous, patient-centered, and accessible care. This review examines the applications, benefits, and challenges of telehealth in maternity care with a focus on its implications. A structured search strategy was conducted across PubMed Medline, Google Scholar, Research Gate, Scopus, and Science Direct. Keywords included telehealth, telemedicine, nursing, and maternity care. Relevant studies were screened and references cross-checked to capture additional evidence. Telehealth interventions in maternity care demonstrate significant benefits such as reduced travel costs, decreased waiting time, and improved access in rural or underserved areas. For health care workers, telehealth supports timely antenatal education, early detection of complications through remote monitoring (e.g., blood pressure and weight), and enhanced patient engagement via mobile applications. The COVID-19 pandemic has accelerated the use of virtual antenatal consultations, creating opportunities for nursing professionals to extend their role in health promotion, psychosocial support, and counseling. However, challenges persist technological barriers, inequitable access, patient trust issues, and limitations in replacing physical examinations with virtual care raise concerns about patient safety. Telehealth in maternity care holds promise for advancing practices through innovations like tele-ultrasound, remote blood pressure surveillance, self-monitoring of fundal height, and digital maternal health education platforms. Yet, barriers related to equity, nurse preparedness, provider adoption, and regulatory frameworks must be addressed. Collaborative, research and policy support are essential to harness the full potential of telehealth, ensuring safe, equitable, and holistic care for pregnant women and their families.

**Keywords:** Telehealth, Telemedicine, Nursing, Maternity care

### INTRODUCTION

Telehealth, encompassing the remote provision of healthcare services such as consultations, diagnoses, therapy guidance, monitoring, and referrals, has rapidly evolved as a transformative approach in healthcare delivery.<sup>1,2</sup> With internet-enabled data storage, sharing, and videoconferencing, telehealth is especially advantageous in underserved and rural areas, reducing patient travel, saving time, and improving continuity of care.<sup>3,4</sup> For nursing practice, this innovation expands the scope of patient-centered care beyond traditional clinical

settings, enabling nurses to engage in remote monitoring, health education, counseling, and follow-up care.

The COVID-19 pandemic in 2020 further accelerated telehealth adoption, particularly in maternal health services, where minimizing face-to-face interactions became essential to safeguard both patients and healthcare providers.<sup>5,6</sup> In antenatal and postnatal care, telehealth offers multiple benefits—reducing financial burden, increasing system efficiency, and providing convenience to expectant mothers.<sup>7</sup> However, reliance on telehealth also poses challenges. Nurses and other healthcare

professionals must address issues such as limited access to technology, concerns about patient privacy, difficulties in establishing therapeutic relationships online, and the risk of missing subtle clinical signs due to the absence of physical examination.<sup>8</sup>

In maternity care, where timely interventions and compassionate support are vital, midwives play a pivotal role in ensuring that telehealth is implemented safely and effectively. This includes providing health education, emotional support, early detection of complications through virtual assessments, and fostering trust in digital platforms.

The present study “Telehealth in maternity care: benefits, barriers, and the future of digital maternity care seeks to examine the implications, applications, and benefits of telehealth in maternity nursing. By analyzing existing literature, it highlights how telehealth can strengthen maternal and neonatal health outcomes, while also acknowledging its limitations and the responsibilities of nurses in bridging technology with human touch.

### SEARCHING AND SCREENING STRATEGY

The search strategy aimed to obtain published material and was structured in three steps. Initially, a restricted exploration of PubMed Medline, Google Scholar, and Research Gate, International Journal of Nursing Education and Research was conducted to identify relevant keywords in titles, abstracts, and subject descriptors.

Secondly, the terms identified, along with their synonyms recognized by the respective databases, were subsequently utilized in an extensive literature search and lastly furthermore, the reference lists and bibliographies of articles collected in the second stage were meticulously scrutinized (Figure 1).

### CURRENT LANDSCAPE OF TELEHEALTH IN MATERNITY CARE

The current landscape of telehealth in maternity care reflects the integration of digital technologies to enhance prenatal and postpartum services. Telehealth in maternity care involves using telecommunications, remote monitoring, and digital communication tools to provide healthcare services and support for pregnant individuals (Figure 2). Key aspects of the current landscape include the following.

#### Virtual consultations

Telehealth offers pregnant individuals the opportunity for remote interactions with healthcare providers, facilitating the monitoring of maternal and fetal health, and addressing concerns through virtual consultations, eliminating the need for in-person visits. According to Shamsabadi et al virtual clinics played a pivotal role in virtual visits, consultations, monitoring, follow-ups, and remote home care, with caregivers expressing high satisfaction scores post-virtual interactions.<sup>9</sup> In a study by Saad et al participants lauded virtual care for its comfort, convenience, and effective communication, foreseeing its potential as a promising tool for long-term compliance in obstetric patients.<sup>10</sup>

#### Distant surveillance

Distant surveillance can be incorporated as an alternative to in-person examinations, enabling entirely virtual consultations. This technology relies on wearable or portable devices to gather health and biometric information from pregnant women, transmitting the data to their healthcare providers. This method demonstrated to be as accurate as in-clinic assessments, monitors various parameters like blood pressure, fetal heart rate, and fetal growth using tools such as tape measures.<sup>11-14</sup>

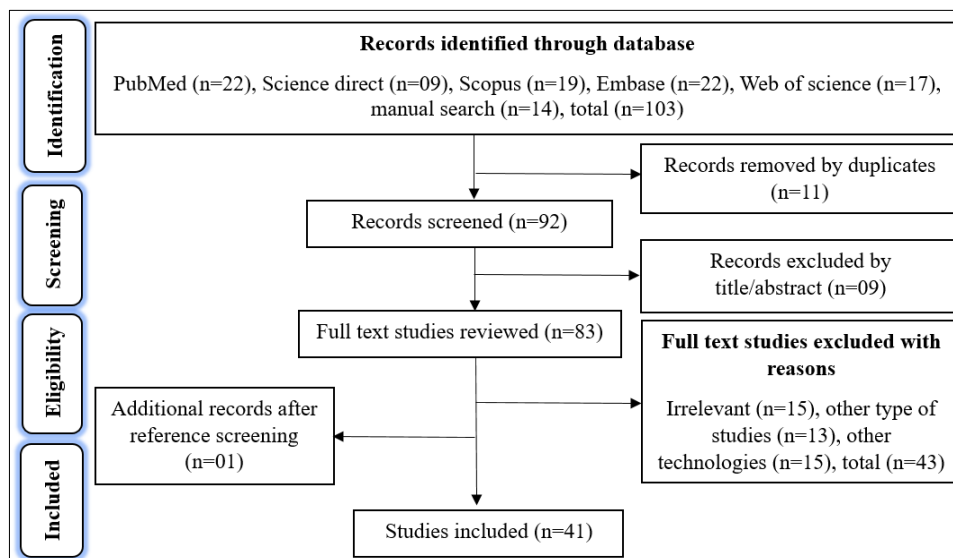
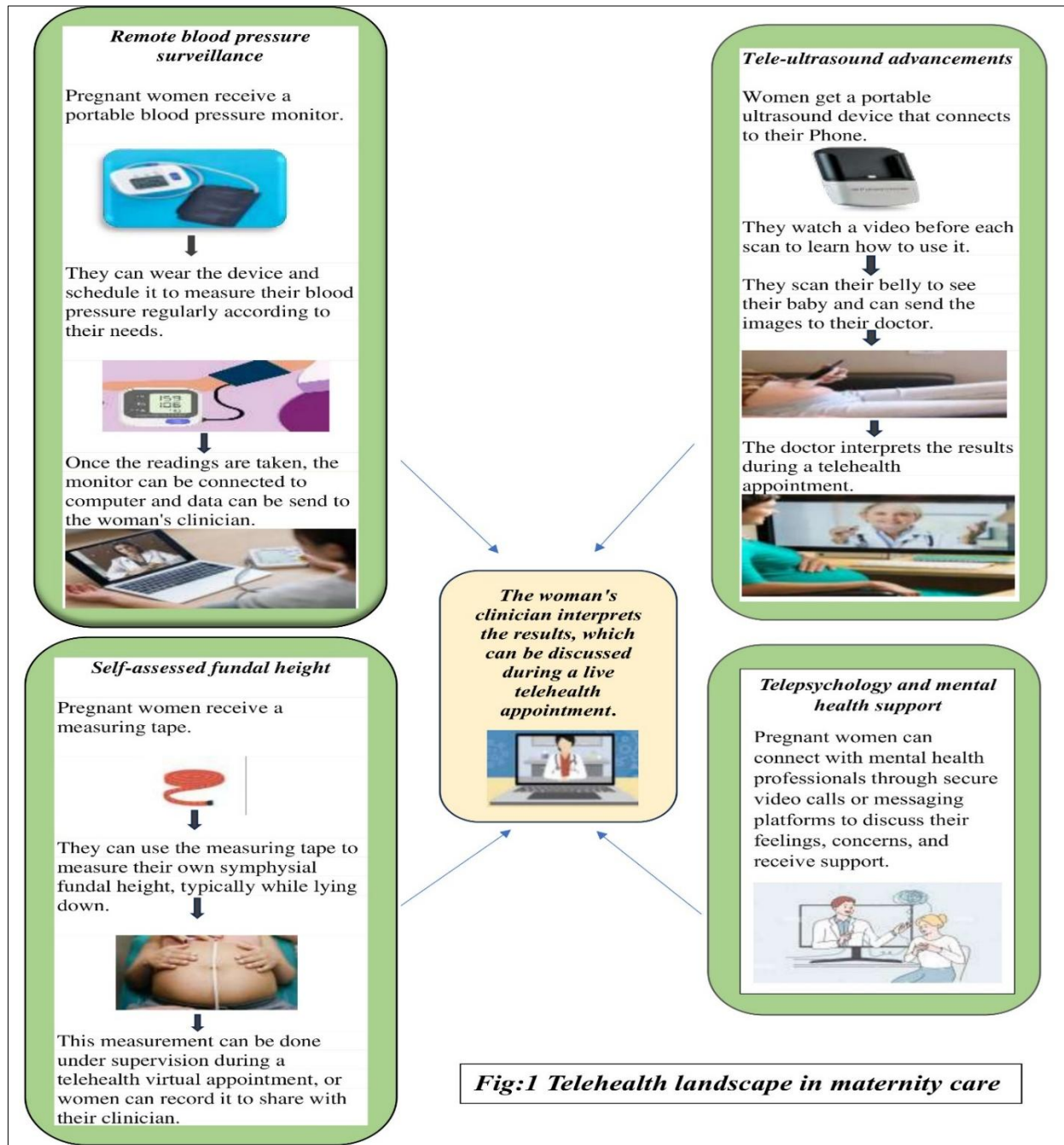


Figure 1: CONSORT diagram representing selection of records (PRISMA).



**Figure 2: Telehealth landscape in maternity care.**

*Tele-ultrasound advancements*

Remote ultrasound consultations in telehealth enable healthcare providers to guide and interpret scans conducted at local facilities or homes, enhancing diagnostic imaging accessibility. Emerging technology, known as tele-ultrasound, allows for remote ultrasound examinations.<sup>15</sup> Initially employed in rural areas for distant oversight of sonographers, this technology, as explored by Hadar et al., has now expanded.<sup>16</sup> In their observational study, women used self-operated tele-ultrasound devices connected to mobile phones for assessing fetal biophysical profiles. The INSTINCT ultrasound device, developed by

PulseNmore, facilitated real-time image sharing with clinicians.<sup>16</sup> Women performed initial ultrasounds under technician guidance, achieving a 95.3% success rate in detecting fetal heart activity and varying success rates for individual profile components.<sup>16,17</sup> Notably, our investigation revealed a research gap in patient-operated tele-ultrasound for estimating fetal weight, suggesting a potential area for future exploration.<sup>17</sup>

*Remote blood pressure surveillance*

The importance of remote blood pressure surveillance lies in its ability to enable continuous monitoring of maternal

health without the need for frequent clinic visits. This approach facilitates early detection of changes in blood pressure, allowing timely intervention and management of conditions such as gestational hypertension or preeclampsia. It enhances the overall efficiency of maternal care, promotes proactive healthcare interventions, and contributes to better outcomes for both mothers and infants. A 2018 systematic review found little difference between blood pressure measurements in clinics and those taken at home during pregnancy.<sup>18</sup> Recent extensive trials, including an analysis of the OPTIMUM-BP randomized trial by Bowen et al, indicated that women with gestational hypertension or preeclampsia could accurately self-monitor their blood pressure, aligning closely with in-clinic readings.<sup>19,20</sup> Similarly, in the BUMP 2 randomized trial involving 850 pregnant women, Chappell et al concluded that blood pressure readings from home monitoring and standard care (clinic readings) were similar.<sup>21</sup>

#### *Self-assessed symphysial fundal height*

Self-assessed symphysial fundal height (SFH) in telehealth refers to a method where pregnant individuals measure the distance between the pubic bone and the top of the uterus (fundus) at home, rather than during an in-person visit to a healthcare provider. This approach is part of telehealth models, which use technology to remotely monitor and manage healthcare. Research, like that conducted by Palmer et al has explored the effectiveness of incorporating self-assessed SFH into telehealth programs.<sup>23</sup> building upon the feasibility demonstrated by Bergman et al.<sup>22</sup> While measurements taken by pregnant women exhibit greater individual variance compared to those by midwives, the approach of obtaining multiple measurements at each visit has been proposed to mitigate this discrepancy.<sup>22</sup> During the telehealth period, Palmer et al. observed a 24% rate of undetected fetal growth restriction in low-risk pregnancies and 5% in high-risk pregnancies, figures comparable to those seen in conventional care settings.<sup>23</sup> These findings suggest that self-measured SFH may be just as accurate as in-clinic measurements in identifying instances of poor fetal growth.

#### *Mobile apps for maternal health*

The landscape of maternal healthcare is evolving with the proliferation of mobile applications designed to cater to the specific needs of expectant mothers. These apps encompass a range of functionalities, including appointment tracking, pregnancy milestones monitoring, and the dissemination of personalized health information. Notably, many of these applications seamlessly integrate with telehealth services, augmenting their utility and accessibility. A noteworthy case study in this domain is the collaborative effort between NEEDS (Network for Enterprise Enhancement and Development Support) and Simavi, a Dutch NGO, focused on maternal health enhancement in rural India.<sup>24</sup> Together, they conceived

Mobile for Mothers (MfM), an application aimed at bolstering maternal awareness and fostering positive health behaviors within tribal communities. This initiative, supported by the Government of Jharkhand and the European Union, signifies a concerted effort to leverage mHealth solutions for the betterment of maternal health outcomes. In Jharkhand's tribal communities, the adoption of mHealth technologies heralds a transformative shift, engendering heightened awareness, increased engagement, and a gradual transition from traditional to modern healthcare practices.<sup>24</sup> By harnessing the power of smartphones for out-of-hospital pregnancy care, both healthcare providers and expectant mothers stand to benefit significantly. These devices facilitate the delivery of personalized services, grant easy access to vital health information, and ultimately contribute to improved pregnancy outcomes.<sup>25</sup>

#### *Telemonitoring high-risk pregnancies*

Telehealth has emerged as a valuable tool in managing high-risk pregnancies, fostering enhanced monitoring and communication channels between healthcare providers and expectant mothers. This innovative approach, as highlighted by Heuvel et al offers a distinct advantage by enabling the observation of fetal and maternal conditions within the comfort and privacy of one's home, contrasting with the traditional confines of hospitalization.<sup>26</sup> The potential of telemonitoring in high-risk pregnancies lies in its capacity to detect complications early, thus enabling timely intervention at the local level before necessitating hospitalization, a prospect that holds promise for improving gestational outcomes.<sup>27</sup> To fully harness the benefits of obstetrical telemonitoring, it is recommended to implement integrated systems that facilitate the comprehensive collection of obstetric parameters throughout the stages of childbirth and postpartum care, ensuring a holistic approach to maternal and fetal health management.<sup>27</sup>

#### *Telepsychology and mental health support*

Telehealth expands its scope to encompass mental health services, catering to the psychological needs of individuals during pregnancy and the postpartum period. Remote counseling and therapy sessions offer accessible support for maternal mental well-being. According to Paul et al, telehealth presents an effective solution for ensuring continual access to evidence-based group therapy programs targeting perinatal mood and anxiety disorders, while also fostering the mother-infant relationship.<sup>28</sup> Additionally, further research provides corroborative evidence, drawing from the experiences of perinatal women and underscoring positive interactions with a videoconference intervention for perinatal depression.<sup>29</sup> These advancements underscore the potential of telehealth to revolutionize mental health support during the perinatal period, offering convenience and effectiveness to mothers in need.

### **Tele-education and support**

Telehealth platforms furnish expectant mothers with educational materials and assistance, delivering guidance on prenatal care, dietary recommendations, breastfeeding, and postpartum recuperation. Moreover, they offer virtual support networks and counseling services, which are increasingly accessible. According to Gill et al, a hybrid care model integrating interdisciplinary education benefits the mental well-being of first-time mothers. Their study indicates that incorporating small-group online education alongside individual pregnancy health assessments in a bustling antenatal clinic yields promising outcomes with minimal staff assistance.<sup>30</sup> Similarly, Escobar et al introduced a telehealth and education model between secondary and tertiary care centers, enhancing obstetric emergency care readiness and decreasing perinatal mortality rates.<sup>31</sup>

### **Cost optimization**

Cost optimization in telehealth maternity care involves harnessing digital technologies to deliver efficient prenatal and postnatal services while minimizing costs. By utilizing telehealth platforms, providers decrease overhead expenses associated with traditional in-person visits, streamline resource allocation, and mitigate indirect costs for patients. This approach not only enhances access to care and improves health outcomes for mothers and babies but also ensures financial sustainability in healthcare delivery. Although research on the cost-effectiveness of prenatal telehealth is limited, existing studies generally demonstrate positive results. Sung et al found that telehealth for pregnant women with pre-existing diabetes saved an average of \$2,798 per woman compared to in-person antenatal care.<sup>32</sup> Similarly, Van den Heuvel et al conducted a cost analysis on a digital health platform and remote monitoring for high-risk preeclampsia women, revealing a 19.7% average cost reduction compared to conventional antenatal care.<sup>33</sup>

### **Contentment**

#### *Healthcare provider contentment*

Healthcare providers engaged in telehealth maternity care find satisfaction in delivering personalized, high-quality services efficiently through digital channels. Telehealth enhances communication, boosts accessibility, and facilitates flexible appointment management, thereby optimizing resource allocation and easing administrative burdens. This approach not only enhances provider satisfaction and patient outcomes but also advances the quality and accessibility of maternal healthcare. Generally, healthcare providers view telehealth positively, as indicated by Konnyu et al's review of 674 providers, who showed a preference for flexible scheduling and viewed telehealth as convenient, particularly for high-risk pregnancies.<sup>34</sup> Similarly, Hofman et al found that 94% of 56 maternity care providers considered telehealth feasible,

with a majority deeming it appropriate and acceptable.<sup>35</sup> Moreover, Hargis-Villanueva et al. reported high provider satisfaction rates with telehealth, with a significant proportion expressing a preference for future use.<sup>36</sup> However, concerns exist, including worries about timely information delivery and potential challenges in self-managing pregnancies, as highlighted by Konnyu et al.<sup>34</sup> Additional barriers identified by Hofmann et al included equipment shortages, inadequate clinic support, and issues with audiovisual quality.<sup>35</sup> Moreover, Holman et al noted concerns about telehealth exacerbating existing health inequities.<sup>37</sup> Nevertheless, Wali et al's study demonstrated high provider satisfaction with antenatal telephone clinics during the pandemic, supporting the ongoing transition towards digitalization in antenatal care.<sup>38</sup>

#### *Patient contentment*

Patient contentment in telehealth maternity care refers to the fulfillment experienced by pregnant individuals who receive remote prenatal and postnatal services. This sense of contentment arises from the convenience, accessibility, privacy, continuity of care, shorter wait times, personalized attention, and improved communication facilitated by telehealth platforms. Telehealth maternity care overall enhances patient experiences and contributes to better maternal and neonatal health outcomes. In a study on tele-ultrasound by Hadar et al, 100 women gave an average user experience rating of 4.4/5 and an average satisfaction rating of 3.9/5, indicating high overall contentment and ease of use.<sup>8</sup> Ghimire et al conducted an extensive review of women's experiences, analyzing 23 studies from 2011 to 2021 with over 15,000 pregnant participants.<sup>39</sup> Their findings revealed preferences for video conferencing, communication in one's native language, user-friendly technology, cost-effectiveness, and a preference for a combined approach of in-person and virtual visits, especially among multiparous women. In a recent systematic review by Konnyu et al, which investigated the experiences of 251 pregnant women with telehealth, concerns were raised about delayed information, increased personal responsibility due to reduced visits, and safety issues.<sup>34</sup> However, women also expressed the belief that telehealth could be tailored more effectively to meet their individual needs compared to traditional care.

### **GAPS AND CHALLENGES IN THE EXISTING LITERATURE**

Telehealth in maternity care faces several notable gaps and challenges that necessitate careful consideration and targeted research efforts. Foremost among these challenges is the need for a robust evidence base supporting the efficacy and safety of telehealth interventions. While promising, many existing studies are limited in scale and scope, hindering conclusive findings and widespread adoption. Additionally, issues of equity and access remain prominent, as not all pregnant individuals have equal access to the necessary technology



or reliable internet connection. Addressing disparities in access to telehealth services is vital for ensuring equitable care delivery. Furthermore, understanding patient acceptance and satisfaction with telehealth in maternity care is essential for successful implementation. Patient preferences and experiences vary, highlighting the importance of tailoring telehealth services to meet individual needs. Provider training and adoption also pose significant challenges, requiring education on technology use, communication skills, and clinical decision-making in remote settings. Overcoming legal and regulatory barriers, ensuring cost-effectiveness, and establishing adequate reimbursement mechanisms are additional hurdles that must be addressed to realize the full potential of telehealth in maternity nursing. By systematically tackling these challenges through multidisciplinary collaboration and targeted research efforts, the field can continue to evolve and improve the quality and accessibility of care for pregnant individuals and their families.

## CONCLUSION

In conclusion, the literature on telehealth in maternity care underscores its potential to revolutionize prenatal and postnatal services, offering remote interactions, distant surveillance, and telemonitoring for high-risk pregnancies. Virtual consultations have shown high patient satisfaction, while technologies like tele-ultrasound and remote blood pressure surveillance enhance diagnostic accessibility. Additionally, self-assessed symphysial fundal height and mobile apps further augment maternal health support. Telehealth's role extends to mental health services, education, and cost optimization, benefiting both providers and patients. However, challenges remain in the evidence base, equity, provider adoption, and regulatory barriers. Addressing these gaps through collaborative research efforts is imperative to fully realize the benefits of telehealth in maternity care, ultimately improving outcomes for pregnant individuals and their families.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: Not required*

## REFERENCES

- Barbosa W, Zhou K, Waddell E, Myers T, Dorsey ER. Improving Access to Care: Telemedicine Across Medical Domains. *Annu Rev Public Health.* 2021;42:463-81.
- Ganjali R, Jajroudi M, Kheirdoust A, Darroudi A, Alnattah A. Telemedicine solutions for clinical care delivery during COVID-19 pandemic: A scoping review. *Front Public Health.* 2022;10:937207.
- Calton B, Abedini N, Fratkin M. Telemedicine in the time of Coronavirus. *J Pain Symptom Manag.* 2020;60:e12-4.
- Zork NM, Aubrey J, Yates H. Conversion and optimization of telehealth in obstetric care during the COVID-19 pandemic. *Semin Perinatol.* 2020;44:151300.
- Couch D, Doherty Z, Panozzo L, Naren T, Burzacott J, Ward B, et al. The impact of telehealth on patient attendance and revenue within an Aboriginal Community Controlled Health Organisation during COVID-19. *Aust J Gen Pract.* 2021;50:851-5.
- Suran M. Increased use of Medicare telehealth during the pandemic. *JAMA.* 2022;327(4):313.
- Gajarawala SN, Pelkowski JN. Telehealth benefits and barriers. *J Nurse Pract.* 2021;17(2):218-21.
- Manjavidze T, Rylander C, Skjeldestad FE, Kazakhashvili N, Anda EE. The impact of antenatal care utilization on admissions to neonatal intensive care units and perinatal mortality in Georgia. *PLoS One.* 2020;15(12):e0242991.
- Shamsabadi A, Dashti M, Ghasemzadeh A, Mehraeen E, Saber Mashhad Taraqi A, Jalali A, et al. Virtual clinic in pregnancy and postpartum healthcare: A systematic review. *Health Sci Rep.* 2022;6(1):e970.
- Saad M, Chan S, Nguyen L, Srivastava S, Appireddy R. Patient perceptions of the benefits and barriers of virtual postnatal care: a qualitative study. *BMC Pregnancy Childbirth.* 2021;21(1):543.
- Aziz A, Zork N, Aubrey JJ, Baptiste CD, D'Alton ME, Emeruwa UN, et al. Telehealth for high-risk pregnancies in the setting of the COVID-19 pandemic. *Am J Perinatol.* 2020;37(8):800-8.
- Fryer K, Delgado A, Foti T, Reid CN, Marshall J. Implementation of obstetric telehealth during COVID-19 and beyond. *Matern Child Health J.* 2020;24(9):1104-10.
- Palmer KR, Tanner M, Davies-Tuck M, Rindt A, Papacostas K, Giles ML, et al. Widespread implementation of a low-cost telehealth service in the delivery of antenatal care during the COVID-19 pandemic: an interrupted time-series analysis. *Lancet.* 2021;398(10294):41-52.
- Nakagawa K, Umazume T, Mayama M, Chiba K, Saito Y, Kawaguchi S, et al. Feasibility and safety of urgently initiated maternal telemedicine in response to the spread of COVID-19: a 1-month report. *J Obstet Gynaecol Res.* 2020;46(10):1967-71.
- Whittington JR, Hughes DS, Rabie NZ, Ounpraseuth ST, Nembhard WN, Chauhan SP, et al. Detection of fetal anomalies by remotely directed and interpreted ultrasound (teleultrasound): a randomized noninferiority trial. *Am J Perinatol.* 2022;39(2):113-9.
- Hadar E, Wolff L, Tenenbaum-Gavish K, Eisner M, Shmueli A, Barbash Hazan S, et al. Mobile self-operated home ultrasound system for remote fetal assessment during pregnancy. *Telemed e-Health.* 2021;28(1):93-101.
- Baschat AA, Galan HL, Lee W, DeVore GR, Mari G, Hobbins J, et al. The role of the fetal biophysical profile in the management of fetal growth restriction. *Am J Obstet Gynecol.* 2022;226(4):475-86.
- Tucker KL, Bankhead C, Hodgkinson J, Roberts N, Stevens R, Heneghan C, et al. How do home and clinic

- blood pressure readings compare in pregnancy? *Hypertension.* 2018;72(3):686-94.
19. Bowen L, Pealing L, Tucker K, McManus RJ, Chappell LC. Adherence with blood pressure self-monitoring in women with pregnancy hypertension, and comparisons to clinic readings: a secondary analysis of OPTIMUM-BP. *Pregnancy Hypertens.* 2021;25:68-74.
  20. Pealing LM, Tucker KL, Mackillop LH, Crawford C, Wilson H, Nickless A, et al. A randomized controlled trial of blood pressure self-monitoring in the management of hypertensive pregnancy. OPTIMUM-BP: a feasibility trial. *Pregnancy Hypertens.* 2019;18:141-9.
  21. Chappell LC, Tucker KL, Galal U, Yu LM, Campbell H, Rivero-Arias O, et al. Effect of self-monitoring of blood pressure on blood pressure control in pregnant individuals with chronic or gestational hypertension: the BUMP 2 randomized clinical trial. *JAMA.* 2022;327(17):1666-78.
  22. Bergman E, Kieler H, Petzold M, Sonesson C, Axelsson O. Self-administered measurement of symphysis-fundus heights. *Acta Obstet Gynecol Scand.* 2007;86(6):671-7.
  23. Palmer KR, Tanner M, Davies-Tuck M, Rindt A, Papacostas K, Giles ML, et al. Widespread implementation of a low-cost telehealth service in the delivery of antenatal care during the COVID-19 pandemic: an interrupted time-series analysis. *Lancet.* 2021;398(10294):41-52.
  24. Choudhury A, Choudhury M. Mobile for Mothers mHealth Intervention to Augment Maternal Health Awareness and Behavior of Pregnant Women in Tribal Societies: Randomized Quasi-Controlled Study. *JMIR Mhealth Uhealth.* 2022;10(9):e38368.
  25. Liu Y, Wang X. Application of Smart Mobile Medical Services in Maternal Health Care Management. Teekaraman Y, editor. *Contrast Media Molecular Imaging.* 2021;2021:6249736.
  26. van den Heuvel JFM, Teunis CJ, Franx A, Crombag NMTH, Bekker MN. Home-based telemonitoring versus hospital admission in high risk pregnancies: a qualitative study on women's experiences. *BMC Pregnancy Childbirth.* 2020;20(1):77.
  27. Alves DS, Times VC, da Silva ÉMA, Melo PSA, Novaes MA. Advances in obstetric telemonitoring: a systematic review. *Int J Med Inform.* 2020;134:104004.
  28. Paul JJ, Dardar S, River LM, St John-Larkin C. Telehealth adaptation of perinatal mental health mother-infant group programming for the COVID-19 pandemic. *Infant Ment Health J.* 2022;43(1):85-99.
  29. Parameswaran UD, Pentecost R, Williams M, Smid M, Latendresse G. Experiences with use of technology and telehealth among women with perinatal depression. *BMC Pregnancy Childbirth.* 2022;22(1):571.
  30. Buultjens M, Gill J, Fielding J, Lambert KA, Vondeling K, Mastwyk SE, et al. Maternity care during a pandemic: Can a hybrid telehealth model comprising group interdisciplinary education support maternal psychological health? *Women Birth.* 2023;36(3):305-13.
  31. Escobar MF, Echavarria MP, Vasquez H, Nasner D, Ramos I, Hincapié MA, et al. Experience of a telehealth and education program with maternal and perinatal outcomes in a low-resource region in Colombia. *BMC Pregnancy Childbirth.* 2022;22(1):604.
  32. van den Heuvel JFM, van Lieshout C, Franx A, Frederix G, Bekker MN. SAFE@HOME: cost analysis of a new care pathway including a digital health platform for women at increased risk of preeclampsia. *Pregnancy Hypertens.* 2021;24:118-23.
  33. Sung Y-S, Zhang D, Eswaran H, Lowery CL. Evaluation of a telemedicine program managing high-risk pregnant women with pre-existing diabetes in Arkansas's Medicaid program. *Semin Perinatol.* 2021;45(5):151421.
  34. Konnyu KJ, Danilack VA, Adam GP, Friedman Peahl A, Cao W, Balk EM. Changes to prenatal care visit frequency and telehealth: a systematic review of qualitative evidence. *Obstet Gynecol.* 2023;141(2):299-323.
  35. Hofmann G, Hampanda K, Harrison MS, Fasano M, Nacht A, Yeoman M. Virtual prenatal and postpartum care acceptability among maternity care providers. *Matern Child Health J.* 2022;26(7):1401-8.
  36. Hargis-Villanueva A, Lai K, van Leeuwen K, Weidler EM, Felts J, Schmidt A, et al. telehealth multidisciplinary prenatal consultation during the COVID-19 pandemic: enhancing patient care coordination while maintaining high provider satisfaction. *J Matern-Fetal Med.* 2022;35(25):9765-9.
  37. Holman C, Glover A, McKay K, Gerard C. Telehealth adoption during COVID-19: lessons learned from obstetric providers in the Rocky Mountain West. *Telemed Rep.* 2023;4(1):1-9.
  38. Wali R, Alhakami A, Alsafari N. Evaluating the level of patient satisfaction with telehealth antenatal care during the COVID-19 pandemic at King Abdul-Aziz Medical City, Primary Health Care Center, Specialized Polyclinic. *Womens Health (Lond).* 2022;18:17455057221104659.
  39. Ghimire S, Martinez S, Hartvigsen G, Gerdes M. Virtual prenatal care: a systematic review of pregnant women's and healthcare professionals' experiences, needs, and preferences for quality care. *Int J Med Informatics.* 2023;170:104964.

**Cite this article as:** Ali N, Philip S, Rawat D. Telehealth in maternity care: benefits, barriers, and the future of digital maternity care: a narrative review. *Int J Reprod Contracept Obstet Gynecol* 2026;15:388-94.