Journal of Chemical Health Risks

www.jchr.org

JCHR (2024) 14(6), 2680-2681 | ISSN:2251-6727

Evaluating the Effectiveness of Digital Health Apps in Managing Obstetrics and Gynaecology Disorders

Dr. Amey Chugh (1st Author)

Assistant Professor, Dr Dy Patil Medical College and Hospital , Pimpri, Pune 411018

Corresponding Author

Dr. Varshini Vadithala

Junior Resident, Dr. Dy Patil Medical College and Hospital, Pimpri, Pune 411018

(Received: 16 October 2024 Revised: 20 November 2024 Accepted: 04 December 2024)

KEYWORDS

Digital Health, Telemedicine, Obstetrics and Gynecology, Artificial Intelligence, Health Literacy

Dear Editor,

Digital health applications (apps) have transformed healthcare delivery by increasing accessibility, raising awareness, and promoting health self-management. These technologies offer particular promise in Obstetrics and Gynaecology (OB-GYN) care, addressing conditions such as gestational diabetes, polycystic ovarian syndrome (PCOS), and postpartum depression. However, while digital health apps offer advantages, they also present significant risks when used as substitutes for professional medical care.

Studies have shown that digital apps improve glycaemic control and maternal outcomes in gestational diabetes mellitus (GDM). For example, digital interventions reduced fasting plasma glucose and the risk of cesarean delivery, demonstrating their utility as an adjunct to clinical care.[1] However, overreliance on these apps without proper clinical oversight risks masking severe conditions. For instance, while apps may track glucose levels, they cannot diagnose or manage complications such as preeclampsia.[2] Many health apps provide symptom checkers or automated diagnostic tools. Users may rely on these features for self-diagnosis and treatment, leading to delayed or incorrect management. For example, apps often oversimplify PCOS, focusing on alleviating symptoms such as irregular periods while ignoring underlying causes like insulin resistance or thyroid dysfunction.[3,4] Misdiagnosis or inappropriate treatment can result in infertility or other long-term health issues.[5] Moreover, the absence of a physical examination means crucial diagnostic clues may be missed, potentially masking serious conditions such as endometrial hyperplasia or malignancy.

Artificial intelligence (AI) integrated into digital apps holds potential for enhancing clinical decision-making. Yet, as highlighted in recent studies, most AI-driven apps lack robust validation through clinical trials, raising concerns about their reliability in real-world settings.[6] For example, apps predicting ovulation or fertility often fail to account for variations in menstrual cycles, leading to inaccuracies that could affect family planning outcomes.[5] The cornerstone of OB-GYN care remains the interaction between patients and healthcare providers. Apps should be used to complement, not replace, clinical evaluations. Personal interaction ensures a comprehensive understanding of the patient's medical history, physical findings, and psychosocial context. As evidenced in a review of telehealth interventions, digital tools are most effective when integrated with regular clinical follow-ups, ensuring that major conditions are not overlooked.[7]

While digital health apps offer promising avenues for OB-GYN care, their limitations underscore the importance of clinical oversight. We urge users to view these apps as supplementary tools to raise

Journal of Chemical Health Risks

www.jchr.org

JCHR (2024) 14(6), 2680-2681 | ISSN:2251-6727

awareness and promote healthy behaviors rather than as substitutes for medical advice. Encouraging regular doctor visits can help prevent mismanagement and ensure appropriate diagnosis and treatment. Future efforts should focus on improving the accuracy, usability, and validation of these apps while promoting their integration with clinical care to maximize their potential benefits.

In conclusion, the role of digital health apps in modern OB-GYN care is undeniable, but their use should be guided by healthcare professionals to ensure patient safety and optimal health outcomes. These tools are best utilized as part of a broader, clinically supervised care plan, empowering patients while maintaining the essential doctor-patient relationship.

REFERENCES

1. Leblalta B, Kebaili H, Sim R, Lee SWH. Digital health interventions for gestational diabetes mellitus: A systematic review and meta-analysis of randomised controlled trials. PLOS Digit Health. 2022 Feb 24;1(2):e0000015. doi: 10.1371/journal.pdig.0000015.
2. Myneni S, Zingg A, Singh T, Ross A, Franklin A, Rogith D, Refuerzo J. Digital health technologies for high-risk pregnancy management: three case studies using Digilego framework. JAMIA open. 2024 Apr 1;7(1):ooae022.
3. Elsheikh NE, Elhabeeb SM, Osman HM, Alhajri AH, Alsaqoor SM, Alwadai NA. Effectiveness of Telehealth in Obstetric and Gynecologic Care: A Systematic Review of Health Outcomes. Cureus. 2024 Nov 6;16(11):e73144.
4. Oelhafen S. Digital health in perinatal care: Exploring usage, attitudes, and needs among Swiss women in urban and rural settings. Digital health. 2024 Sep;10:20552076241277671.
5. Symul L, Wac K, Hillard P, Salathé M. Assessment of menstrual health status and evolution through mobile apps for fertility awareness. NPJ digital medicine. 2019 Jul 16;2(1):64.
6. Delanerolle G, Yang X, Shetty S, Raymont V, Shetty A, Phiri P, Hapangama DK, Tempest N, Majumder K, Shi JQ. Artificial intelligence: a rapid case for advancement in the personalization of gynaecology/obstetric and mental health care. Women's Health. 2021 May;17:17455065211018111.
7. Murugesu S, Galazis N, Jones BP, Chan M, Bracewell-Milnes T, Ahmed-Salim Y, Grewal K, Timmerman D, Yazbek J, Bourne T, Saso S. Evaluating the use of telemedicine in gynaecological practice: a systematic review. BMJ open. 2020 Dec 1;10(12):e039457.