



USABILITY ANALYSIS OF THE LASIRAH "LANCAR ASI SEHAT IBU RIANG ANAK DAN HAPPY" APPLICATION WITH THE USE QUESTIONNAIRE

Siti Rochana *¹, Septi Tri Aksari²

*¹Bachelor of Nursing Program, ²Midwifery Diploma Program, Stikes Serulingmas
e-mail: rochanasermas@gmail.com*

ABSTRACT

Introduction: The postpartum period is a crucial phase for mothers in maintaining exclusive breastfeeding. Low self-efficacy and postpartum depression are major barriers to breastfeeding success. Advances in digital technology offer opportunities to enhance maternal independence through innovations. **Aims:** This study aimed to analyze the usability level of the LASIRAH (Lancar ASI Sehat Ibu Riang Anak dan Happy). **Method:** The study used a quantitative descriptive design with a cross-sectional method. The subjects were 30 postpartum mothers who used the LASIRAH application for 7 days, selected using a purposive sampling technique. Usability was measured using the USE Questionnaire, which covers the dimensions of usefulness, ease of use, ease of learning, and satisfaction. Data were collected using a 1–4 Likert scale questionnaire and analyzed descriptively as part of a formative usability evaluation. **Result:** The overall usability score was 84.54%, categorized as very feasible. Specifically, the usefulness dimension scored 86%, ease of use 84.5%, ease of learning 83.5%, and satisfaction 84.15%. These results indicate that LASIRAH is highly useful, easy to use and learn, and provides high user satisfaction. **Conclusions and Suggestions:** LASIRAH shows strong potential for broader implementation to enhance breastfeeding self-efficacy and prevent postpartum depression through a user-centered digital health approach.

Keywords: USE Questionnaire, self-efficacy, postpartum depression, usability, digital application

INTRODUCTION

Exclusive breastfeeding remains a key indicator of maternal and child health program success; however, breastfeeding practices are frequently challenged by maternal psychological and emotional conditions during the postpartum period. One of the most influential determinants is Breastfeeding Self-Efficacy (BSE), defined as a mother's belief in her ability to breastfeed successfully. Previous studies have shown that low BSE is associated with early cessation of exclusive breastfeeding and an increased risk of postpartum mental health problems, including anxiety and depression, underscoring the importance of interventions that simultaneously support breastfeeding confidence and maternal emotional well-being (Galipeau *et al.*, 2018; Seddighi, Khalesi and Majidi, 2022).

Alongside technological advances, mobile health (mHealth) applications have emerged as innovative tools to support breastfeeding practices and maternal mental health. App-based interventions can facilitate access to breastfeeding education, reminders, and psychosocial support, which have been shown to positively influence BSE and emotional well-being (Seddighi, Khalesi and Majidi, 2022). Furthermore, digital mental health applications equipped with mood

Article History:

Received: December 26, 2025; Revised: January 26, 2026; Accepted: April 14, 2026



tracking, psychoeducational content, and interaction with healthcare professionals have demonstrated effectiveness in reducing mild postpartum anxiety and depressive symptoms (Elvina and Suryantara, 2022). Nevertheless, the effectiveness of such digital interventions is highly dependent on the quality of user experience.

Usability is a critical factor determining whether digital health applications can be adopted and used effectively. Applications with poor usability may hinder learning processes, reduce user engagement, and limit their capacity to provide meaningful psychosocial support (Beukering *et al.*, 2019; Islam *et al.*, 2020; Reza *et al.*, 2024). Prior studies emphasize that usability dimensions usefulness, ease of use, ease of learning, and user satisfaction are central to sustained engagement and intervention effectiveness, particularly in maternal health contexts (Padró-arocas and Mena-tudela, 2023; Musti and Kahumbu, 2025).

Despite the growing number of mHealth applications for maternal care, empirical evidence evaluating usability in an integrated breastfeeding and mental health support platform remains limited. Many existing applications focus on single functions, such as information delivery or basic monitoring, without systematically assessing usability from the user's perspective. The LASIRAH application was developed to integrate breastfeeding education, monitoring of mental and emotional conditions, and evidence-based information within a single platform tailored to postpartum mothers. However, empirical evaluation of its usability as a prerequisite for effective implementation is still lacking.

Based on this gap, the present study aims to evaluate the usability level of the LASIRAH application using the USE Questionnaire, focusing on the dimensions of usefulness, ease of use, ease of learning, and user satisfaction. This evaluation seeks to provide empirical evidence regarding users' perceptions of the application's design and functionality, serving as a foundation for future refinement and development of digital maternal health interventions.

RESEACH METHOD

This study was designed to evaluate the usability of the LASIRAH application as a postpartum mother support application by quantitatively measuring user experience. The study used a quantitative descriptive design with a cross-sectional approach, aiming to describe the application's usability level based on user ratings at a single measurement point. This design was chosen because it is suitable for assessing the quality of digital system use without intervention.

Data collection was conducted using the USE Questionnaire developed by Lund (2001), which consists of 20 question items with a four-point Likert scale covering four main dimensions: usefulness, ease of use, ease of learning, and satisfaction. These four dimensions were analyzed descriptively and served as the basis for reporting the research results in the form of the average score for each dimension and the overall usability score. The rating scale used is 1 = Strongly Disagree (STS), 2 = Disagree (TS), 3 = Agree (S), and 4 = Strongly Agree (SS).

The study population consisted of postpartum mothers (0–6 months) who had used the LASIRAH application for 7 days. The study sample comprised 30 respondents, selected using purposive sampling based on inclusion criteria. This sample size was considered adequate for early-stage usability testing, as the research focused on the quality of the user experience rather than population



generalization. The usability assessment results were obtained from the aggregation of respondent scores for each dimension of the USE Questionnaire.

Inclusion criteria for respondents included:

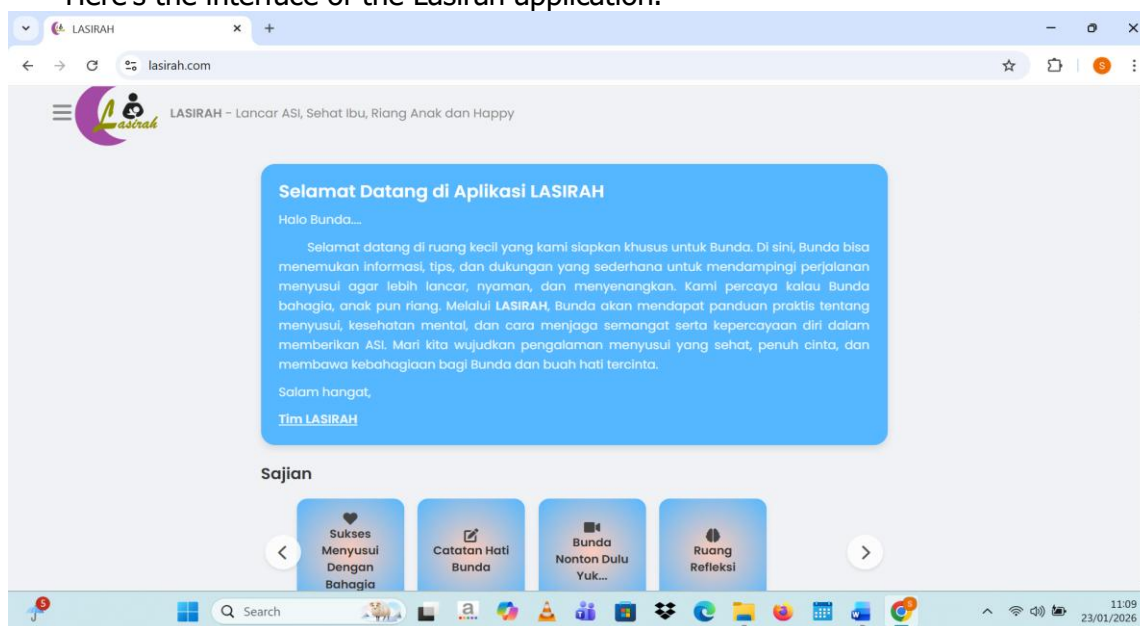
1. Postpartum mothers (0–6 months) who had used the LASIRAH application for 7 days.
2. Able to read and understand Indonesian.
3. Willing to be respondents by signing informed consent.

Respondents were recruited through community health centers that were part of the researchers' network, with the assistance of healthcare workers and community health volunteers in identifying postpartum mothers who met the criteria. Respondents were asked to use the application independently before completing the questionnaire.

This research has obtained ethical approval from the Health Research Ethics Committee (KEPK) of Muhammadiyah University Purwokerto, number KEPK/UMP/170/VIII/2025. All respondents received a complete explanation of the purpose, procedures, and data confidentiality guarantees, and participated voluntarily.

Usability evaluation was conducted on the LASIRAH application, which has different characteristics from similar applications that generally only focus on one-way breastfeeding education. LASIRAH is designed in an integrated manner to support education, monitoring, and psychosocial support for postpartum mothers, making usability evaluation important to ensure the application can be used effectively, easily, and satisfactorily by users.

Here's the interface of the Lasirah application.



Article History:

Received: December 26, 2025; Revised: January 26, 2026; Accepted: April 14, 2026



The formula used to calculate usability levels based on the USE Questionnaire can be explained as follows:

$$Pk (\%) = \frac{s \times y \times d}{s \times v \times ha} \times 100\%$$

$$= \frac{\text{skor usability pengukuran}}{\text{skor usability maksimal}} \times 100\%$$

Description:

Pk (%) = Usability level in percent

s = score

y = number of statements

d = number of respondents

ha = maximum number

The data obtained is then converted according to the eligibility categories listed in Table 1

Table 1 : Eligibility Category

Percentage (%)	Classification
< 21	Highly unsuitable
21-40	Not suitable
41-60	Enough
61-80	Worthy
81-100	Highly recommended

RESULTS AND DISCUSSION

This research shows that the LASIRAH application has an excellent level of usability based on the USE Questionnaire. Overall, the usability score reached 84.54%, which falls into the very usable category. If summarized by dimension, the Usefulness aspect scores approximately 86%, Ease of Use 84.5%, Ease of Learning 83.5%, and Satisfaction 84.15%. These findings indicate that users find the LASIRAH application useful, easy to use, easy to learn, and provide a satisfying user experience. Item-level details for each dimension are attached.

The usefulness aspect is used to assess the extent to which the application helps users achieve their goals. The findings of this study indicate that the usefulness aspect of the LASIRAH application received a very high score (86%) and fell into the very feasible category, confirming that LASIRAH is perceived as truly beneficial in supporting the specific needs of postpartum mothers, particularly regarding breastfeeding information, self-care, and mental health. This high perceived usefulness is closely related to the unique characteristics of postpartum mothers, who commonly experience physical recovery challenges, emotional vulnerability, time constraints, and increased cognitive load while adapting to their new maternal role. Digital health applications are considered particularly useful for this population when they provide concise, easily accessible, and contextually relevant information that can be used independently without increasing psychological burden (Lim *et al.*, 2019; Alrida and Hayajneh, 2025). This result aligns with various previous studies that identify usefulness as the primary determinant of success for digital health applications. These



applications are considered effective when they can provide relevant information, support decision-making, and offer tangible added value to users (Sousa and Lopez, 2017; Hajesmaeel-Gohari *et al.*, 2022). In the context of postpartum care, usefulness is strongly associated with the application's ability to support breastfeeding confidence, emotional regulation, and self-monitoring of mental well-being, all of which are critical during the early postpartum period (Liu *et al.*, 2022; Özçoban, Çilesiz and Uluşen, 2025). Compared to other general or administrative health applications, such as web-based health applications (Kharazmi, Majidpour Azad Shirazi and Yazdani, 2023), Android-based Knowledge Management Systems (Tus Sadiyah, 2020), and Mobile JKN (Handasari, Wulandari and Haikal, 2024), LASIRAH demonstrates superiority in content and function alignment with the contextual needs of postpartum mothers, resulting in more direct and practical benefits from the application. This contextual alignment enhances perceived usefulness by ensuring that the information and features directly correspond to real-life postpartum experiences rather than generic health management tasks. This finding is also consistent with the results of a systematic review that confirms that health applications with a high level of usefulness tend to improve the effectiveness of health monitoring and the efficiency of user activity (Lim *et al.*, 2025). Thus, LASIRAH not only aligns with previous research findings but also confirms its position as a health application with high utility value and specific relevance to the postpartum mother population.

The ease of use aspect is used to assess the extent to which users perceive ease in using it. The findings of this study indicate that LASIRAH not only has a very high level of usefulness (86%), but is also supported by excellent ease of use (84.5%), demonstrating a strong connection between usability dimensions in creating an effective user experience for postpartum mothers. This result aligns with previous research confirming that health applications will be perceived as truly beneficial when designed to be easy to use, easy to learn, and capable of reducing users' cognitive load thru an intuitive interface and clear navigation (Zhou *et al.*, 2019; Hajesmaeel-Gohari *et al.*, 2022; Umar *et al.*, 2024). M-health studies also show that the combination of ease of use and perceived usefulness is the strongest predictor of user satisfaction, trust, and engagement, as ease of use increases users' confidence in the relevance and accuracy of the information presented (Sousa and Lopez, 2017; Aktas, Cambon and Aromatario, 2023; Alshammari *et al.*, 2025). The consistency of these findings is supported by evaluations of health applications and web portals, which show that a consistent page structure, quick access to key features, and the use of easy-to-understand terminology directly contribute to the perceived usefulness and continued use of the application (Ferrucci *et al.*, 2021; Kharazmi, Majidpour Azad Shirazi and Yazdani, 2023). Compared to other general, administrative, or system-oriented health applications, LASIRAH stands out because it specifically integrates ease of use with content that is contextually relevant to postpartum mothers, making the application's benefits felt more directly in supporting breastfeeding, self-care, and mental health during the postpartum transition period.

The ease of learning aspect is used to assess how easily users find it to learn the system or application. The findings of this study indicate that the ease of learning aspect of the LASIRAH application falls into the very feasible category (83.5%), confirming that the application can be learned quickly and easily by postpartum mothers without requiring a long adaptation period. This result aligns with the concept of learnability in user experience design, which emphasizes the

Article History:

Received: December 26, 2025; Revised: January 26, 2026; Accepted: April 14, 2026



importance of ease of understanding a system from initial use (ISO, 2019). Various previous studies have also confirmed that ease of learning, along with ease of use and perceived usefulness, is a strong predictor of user satisfaction and engagement with m-health applications, as an easy-to-learn interface can reduce cognitive load and increase users' confidence in utilizing digital health features (Zhou *et al.*, 2019; Johnson *et al.*, 2022; Deniz-Garcia *et al.*, 2023; Alshammari *et al.*, 2025). In the context of postpartum mothers, the ease of learning the application has more specific implications, as it allows users to immediately access breastfeeding monitoring features, educational materials, and emotional support without adding stress or frustration, thus potentially strengthening breastfeeding self-efficacy and psychological stability (Zhou *et al.*, 2019; Deniz-Garcia *et al.*, 2023; Shen *et al.*, 2024). This finding is also consistent with studies in Indonesia which show that perceived ease of use significantly influences the behavior of using web-based healthcare systems (Widodo, Hosizah and Pertiwi, 2024). Compared to general health applications, these results confirm that LASIRAH has advantages as a maternal-postpartum application designed to be easy to learn, allowing its benefits to be felt more quickly and relevantly during the postpartum transition phase.

The satisfaction aspect is used to assess users' perceptions, feelings, and opinions regarding a system or application. The findings of this study indicate that the satisfaction aspect of the LASIRAH application falls into the very feasible category (84.15%), signifying that postpartum mothers feel satisfied with their overall experience using the application, including ease of access, interface appearance, and the accuracy and reliability of the information. This result aligns with the literature that positions satisfaction as a comprehensive indicator of user experience quality and a determinant of the sustainability of health application use (Zhou *et al.*, 2019). Previous research also confirms that satisfaction is highly influenced by users' level of trust, which is built thru data security, system stability, and information accuracy, thus promoting convenience and interest in continued use (Adjekum, Blasimme and Vayena, 2018). Other studies show that satisfaction with educational and self-management applications is consistently correlated with increased user engagement and feature utilization (Pirie and Tambotoh, 2022; Ali Sherazi *et al.*, 2024). In the context of breastfeeding support and mental health, digital applications rated as satisfactory have been shown to contribute to increased breastfeeding self-efficacy and reduced emotional stress in postpartum mothers (Qian *et al.*, 2021; Daehn *et al.*, 2023; Franco *et al.*, 2024; Lawrence *et al.*, 2024). Additionally, clear navigation, a simple interface, and relevant information were reported as key factors in increasing user satisfaction (Dopades, Sumarlin and Deanda, 2023), thus strengthening LASIRAH's position as a maternal-postpartum application that is not only informative but also safe, comfortable, and oriented toward the needs of mothers.

Findings This study's findings indicate that LASIRAH has a very high usability level (84.54%), with all dimensions of the USE Questionnaire (usefulness, ease of use, ease of learning, and satisfaction) scoring above 80%, confirming that this application has met the user-centered design principles recommended for health application development. High perceived usefulness indicates that LASIRAH is able to provide information that is relevant, easily accessible, and meets the needs of postpartum mothers, which is in line with the literature stating that health applications are considered useful when they support users'



practical needs and health decision-making (Köhler and Usability, 2020). A good ease of use score indicates that a well-organized menu structure, an intuitive interface, and minimal operational steps contribute to ease of independent use, as also reported in various usability studies based on the USE Questionnaire and public service applications (Firmansyah, 2018; Gao, Kortum and Oswald, 2018; Jannah *et al.*, 2020). The high ease of learning aspect reinforces this finding, as the consistent interface design and easy-to-understand instructions allow mothers to quickly learn the core features of the application without increasing cognitive load, as demonstrated in research on digital learning media and health applications (Jannah *et al.*, 2020). This combination of perceived benefits, ease of use, and ease of learning leads to a high level of satisfaction, which is considered a comprehensive indicator of user experience quality and continued use intention in the literature (Hajesmaeel-Gohari *et al.*, 2022). Furthermore, these findings are relevant to empirical evidence that user-friendly and easy-to-learn digital educational interventions contribute to increased breastfeeding self-efficacy and a reduction in postpartum depression symptoms (Rochana S, Hapsari ED; Widyawati, 2015; Rochana, Aksari and Alfiani, 2022). Thus, compared to general or administrative health applications, LASIRAH asserts its position as a maternal-postpartum application that is not only technically superior in terms of usability but also has the potential to make a significant behavioral and psychological impact on mothers during the postpartum period.

The high usability levels across all four dimensions of the USE Questionnaire indicate that LASIRAH has the potential to be an effective digital support tool for postpartum mothers. The practical implications of these findings are that applications with simple designs, relevant content, and clear user flows can support increased breastfeeding self-efficacy and help mothers access mental health information without adding cognitive burden. From a development perspective, these results provide a basis for concluding that the user-centered design approach has been well implemented and should be maintained, particularly in the context of postpartum mothers who are vulnerable to physical and emotional fatigue. Academically, these findings strengthen the evidence that the USE Questionnaire is a relevant instrument for evaluating maternal and child health applications.

This research has several limitations. First, the number of respondents is relatively limited and only involves users at a single point in time (cross-sectional), so generalizing the results needs to be done with caution. Second, the usability evaluation is based on users' subjective perceptions thru questionnaires, without being combined with observational methods or objective system performance measurements. Third, the analysis in this discussion section focuses on summarizing scores per dimension, while item-level details are not discussed in depth. Further research is suggested to involve a larger sample, a longitudinal design, and to combine usability evaluation with measurements of clinical impact or user behavior.

CONCLUSION AND SUGGESTIONS

This study shows that the LASIRAH application has an excellent level of usability, with all dimensions of the USE Questionnaire—usefulness (86%), ease of use (84.5%), ease of learning (83.5%), and satisfaction (84.15%)—scoring above 80% and an overall value of 84.54%. This finding provides initial empirical evidence that the USE Questionnaire can be effectively used to evaluate the

Article History:

Received: December 26, 2025; Revised: January 26, 2026; Accepted: April 14, 2026



usability of maternal health applications in the maternal-postpartum context, which is still relatively limited in the m-health evaluation literature. The high consistency of values across all four dimensions confirms that LASIRAH is not only technically superior from a user-centered design perspective, but also has practical implications as a means of supporting education, decision-making, and digital companionship for postpartum mothers. As a future implication, further research needs to expand the scope of usability evaluation toward clinical and behavioral effectiveness testing (e.g., regarding breastfeeding self-efficacy and mental health), longitudinal evaluation to assess the sustainability of use and changes in user perceptions over time, as well as improvements and testing of features that include system performance, data security, accessibility, and service personalization aspects, so that LASIRAH's contribution can be strengthened both scientifically and in digital maternal health practice.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia through the Directorate of Research, Technology, and Community Service (DRTPM) for funding this research under the 2025 research grant program. This study was supported by the Master Contract dated May 28, 2025, with contract number 127/C3/DT.05.00/PL/2025, and derivative contracts dated May 29 and May 30, 2025, with contract numbers 111/LL6/PL/AL.04/2025 and 02.3/SSC/716.3/V/2025. The authors also thank all parties who contributed to the implementation of this research.

REFERENCES

- Adjekum, A., Blasimme, A. and Vayena, E. (2018) 'Elements of trust in digital health systems: Scoping review', *Journal of Medical Internet Research*, 20(12), pp. 1–10. Available at: <https://doi.org/10.2196/11254>.
- AKTAS, M., CAMBON, L. and AROMATARIO, O. (2023) 'User-engagement in digital health applications: a scoping review', *Research Square* [Preprint]. Available at: <https://www.researchsquare.com/article/rs-3333695/v1>.
- Ali Sherazi, B. *et al.* (2024) 'Evaluating usability of and satisfaction with mHealth app in rural and remote areas—Germany GIZ collaboration in Bosnia-Herzegovina to optimize type 1 diabetes care', *Frontiers in Digital Health*, 6(June), pp. 1–13. Available at: <https://doi.org/10.3389/fdgth.2024.1338857>.
- Alrida, N.A. and Hayajneh, F.A. (2025) 'The effect of smartphone application on postpartum depression among mothers: a literature review', *Middle East Current Psychiatry* [Preprint]. Available at: <https://doi.org/10.1186/s43045-025-00516-y>.
- Alshammari, H.M. *et al.* (2025) 'Evaluating user satisfaction and engagement in mHealth: Insights from the Integrated Digital Health Engagement Model (IDHEM)', *Digital Health*, 11. Available at: <https://doi.org/10.1177/20552076251346698>.
- Beukering, M. Van *et al.* (2019) 'Usability and Usefulness of a Mobile Health App for Pregnancy-Related Work Advice: Mixed-Methods Approach



- Corresponding Author':, 7, pp. 1–13. Available at: <https://doi.org/10.2196/11442>.
- Daehn, D. *et al.* (2023) 'SmartMoms – a web application to raise awareness and provide information on postpartum depression', *BMC Pregnancy and Childbirth*, 23(1), pp. 1–13. Available at: <https://doi.org/10.1186/s12884-023-05680-9>.
- Deniz-Garcia, A. *et al.* (2023) 'Quality, Usability, and Effectiveness of mHealth Apps and the Role of Artificial Intelligence: Current Scenario and Challenges', *Journal of Medical Internet Research*, 25. Available at: <https://doi.org/10.2196/44030>.
- Dopades, M., Sumarlin, R. and Deanda, T.R. (2023) 'Analisis Ui Dan Ux Aplikasi Halodoc Terhadap Pengguna Layanan Kesehatan', *Desain Komunikasi Visual Manajemen Desain dan Periklanan (Demandia)*, 8(1), p. 1. Available at: <https://doi.org/10.25124/demandia.v8i1.4685>.
- Elvina, A. and Suryantara, B. (2022) 'Efektivitas aplikasi berbasis android â€œBusui Cerdasâ€œ untuk meningkatkan pengetahuan ibu menyusui tentang pemberian asi eksklusif', *Jurnal Kebidanan dan Keperawatan Aisyiyah*, 18(1), pp. 85–95. Available at: <https://doi.org/10.31101/jkk.1630>.
- Ferrucci, F. *et al.* (2021) 'A web-based application for complex health care populations: user-centered design approach', *JMIR Human Factors*, 8(1), pp. 1–13. Available at: <https://doi.org/10.2196/18587>.
- Firmansyah, R. (2018) 'Usability Testing Dengan Use Questionnaire Pada Aplikasi Sipolin Provinsi Jawa Barat', *Swabumi*, 6(1), pp. 1–7. Available at: <https://doi.org/10.31294/swabumi.v6i1.3310>.
- Franco, P. *et al.* (2024) 'Developing a Guided Web App for Postpartum Depression Symptoms: User-Centered Design Approach', *JMIR Formative Research*, 8, pp. 1–22. Available at: <https://doi.org/10.2196/56319>.
- Galipeau, R. *et al.* (2018) 'Effectiveness of interventions on breastfeeding self-efficacy and perceived insufficient milk supply: A systematic review and meta-analysis', *Maternal and Child Nutrition*. Available at: <https://doi.org/10.1111/mcn.12607>.
- Gao, M., Kortum, P. and Oswald, F. (2018) 'Psychometric evaluation of the USE (usefulness, satisfaction, and ease of use) questionnaire for reliability and validity', *Proceedings of the Human Factors and Ergonomics Society*, 3, pp. 1414–1418. Available at: <https://doi.org/10.1177/1541931218621322>.
- Hajesmaeel-Gohari, S. *et al.* (2022) 'The most used questionnaires for evaluating satisfaction, usability, acceptance, and quality outcomes of mobile health', *BMC Medical Informatics and Decision Making*, 22(1), pp. 1–9. Available at: <https://doi.org/10.1186/s12911-022-01764-2>.
- Handasari, S.P., Wulandari, R. and Haikal (2024) 'Evaluation of the Usability and User Experience of the Jaminan Kesehatan Nasional Mobile Application in Indonesia', *Healthcare Informatics Research*, 30(4), pp. 324–332. Available at: <https://doi.org/10.4258/hir.2024.30.4.324>.
- Islam, M.N. *et al.* (2020) 'Investigating usability of mobile health applications in Bangladesh', 3, pp. 1–13.
- ISO (2019) 'INTERNATIONAL STANDARD interactive systems iTeh STANDARD iTeh STANDARD PREVIEW', 2019.

Article History:

Received: December 26, 2025; Revised: January 26, 2026; Accepted: April 14, 2026



- Jannah, S.N. *et al.* (2020) 'Abstract: Keywords: Abstrak: Kata Kunci':, 18(02).
- Johnson, S.G. *et al.* (2022) 'Usability Methods and Attributes Reported in Usability Studies of Mobile Apps for Health Care Education: Scoping Review', *JMIR Medical Education*, 8(2). Available at: <https://doi.org/10.2196/38259>.
- Kharazmi, E., Majidpour Azad Shirazi, A. and Yazdani, A. (2023) 'Development and usability evaluation of a web-based health information technology dashboard of quality and economic indicators', *Frontiers in Health Informatics*, 12. Available at: <https://doi.org/10.30699/fhi.v12i0.466>.
- Köhler, T. and Usability, T. (2020) 'Usability evaluation of personalized adaptive e-learning system using USE questionnaire Didik Hariyanto Recommended citation: Usability evaluation of personalized adaptive e-learning system using USE questionnaire Didik Hariyanto', *Knowledge Management & E-Learning: An International Journal (KM&EL)*, 12(1), pp. 85–105.
- Lawrence, C.G. *et al.* (2024) 'Effectiveness of a web-enabled psychoeducational resource for postpartum depression and anxiety among women in British Columbia', *Archives of Women's Mental Health*, 27(6), pp. 995–1010. Available at: <https://doi.org/10.1007/s00737-024-01468-8>.
- Lim, P.C. *et al.* (2025) 'Usability questionnaire for standalone or interactive mobile health applications: a systematic review', *BMC Digital Health*, 3(1). Available at: <https://doi.org/10.1186/s44247-025-00150-y>.
- Lim, S. *et al.* (2019) 'Health Professionals ' and Postpartum Women ' s Perspectives on Digital Health Interventions for Lifestyle Management in the Postpartum Period: A Systematic Review of Qualitative Studies', *Frontiers in Endocrinology*, 10(November), pp. 1–10. Available at: <https://doi.org/10.3389/fendo.2019.00767>.
- Liu, C. *et al.* (2022) 'Positive intervention effect of mobile health application based on mindfulness and social support theory on postpartum depression symptoms of puerperae', *BMC Women's Health*, 22(1), pp. 1–14. Available at: <https://doi.org/10.1186/s12905-022-01996-4>.
- Musti, A. and Kahumbu, S. (2025) 'Usability and Usefulness of SMS-Based Artificial Intelligence Intervention (Mwana) on Breastfeeding Outcomes in Lagos , Nigeria: Pilot App Development Study', *JMIR*, 9, pp. 1–9. Available at: <https://doi.org/10.2196/65157>.
- Özçoban, F.A., Çilesiz, E. and Uluşen, M. (2025) 'The impact of tele-education support on mothers ' sense of security and breastfeeding self-efficacy during the pandemic', *BMC Pregnancy and Childbirth* [Preprint].
- Padró-arocas, A. and Mena-tudela, D. (2023) 'Spanish version of the mHealth app usability questionnaire (MAUQ) and adaptation to breastfeeding support apps', *International Journal of Medical Informatics*, pp. 1–25.
- Pirie, C.R. and Tambotih, J.J.C. (2022) 'Analisis kebergunaan menggunakan usefulness, satisfaction, and ease-of-use questionnaire pada perbankan digital', *Jurnal Sistemasi*, 12(1), pp. 154–165. Available at: <https://sistemasi.ftik.unisi.ac.id/index.php/stmsi/article/view/2396/527>.
- Qian, J. *et al.* (2021) 'The value of mobile health in improving breastfeeding outcomes among perinatal or postpartum women: Systematic review and meta-analysis of randomized controlled trials', *JMIR mHealth and uHealth*, 9(7), pp. 1–12. Available at: <https://doi.org/10.2196/26098>.
- Reza, M. *et al.* (2024) 'Mobile health apps for pregnant women usability and



- quality rating scales: a systematic review', pp. 1–9. Available at: <https://doi.org/10.1186/s12884-023-06206-z>.
- Rochana, S., Aksari, S.T. and Alfiani, T. (2022) 'Pengaruh Edukasi Kesehatan Dengan E - Booklet Terhadap Breastfeeding Self Efficacy Dan Maternal Depressive Symptom Di Masa Pandemi Covid 19', *Jurnal kesehatan Al-Irsyad*, 15(1), pp. 104–115. Available at: <http://e-jurnal.universitاسالirsyad.ac.id/index.php/jka/article/view/337/220>.
- Seddighi, A., Khalesi, Z.B. and Majidi, S. (2022) 'The effect of mobile-based training on maternal breastfeeding self-efficacy: a randomized clinical trial', *African Health Sciences*, 22(3), pp. 648–655. Available at: <https://doi.org/10.4314/ahs.v22i3.69>.
- Shen, Yichun *et al.* (2024) 'Evaluating the Usability of mHealth Apps: An Evaluation Model Based on Task Analysis Methods and Eye Movement Data', *Healthcare (Switzerland)*, 12(13). Available at: <https://doi.org/10.3390/healthcare12131310>.
- SITI ROCHANA, Elsi Dwi Hapsari, S.Kp., M.S., D.S; Widyawati, S.Kp., M.K. (2015) 'PENGARUH PEMBERIAN EDUKASI TENTANG LAKTASI TERHADAP SELF EFFICACY IBU MENYUSUI PADA IBU PRIMIPARA'. Available at: https://etd.repository.ugm.ac.id/penelitian/detail/84403?utm_source=chatgpt.com.
- Sousa, V. and Lopez, K.D. (2017) 'Towards Usable E-Health', *Applied Clinical Informatics*, 08(02), pp. 470–490. Available at: <https://doi.org/10.4338/aci-2016-10-r-0170>.
- Tus Sadiyah, H. (2020) 'Usability Testing on Android-based KMS for Pregnant Women using the USE Questionnaire', *International Journal of Quantitative Research and Modeling*, 1(3), pp. 164–173. Available at: <https://doi.org/10.46336/ijqrm.v1i3.61>.
- Umar, M. *et al.* (2024) 'Design Strategies to Minimize Mobile Usability Issues in Navigation Design Patterns', *Information (Switzerland)*, 15(11). Available at: <https://doi.org/10.3390/info15110732>.
- Widodo, A., Hosizah and Pertiwi, T.S. (2024) 'Persepsi Kemanfaatan dan Kemudahan terhadap Perilaku Penggunaan Sistem Informasi Manajemen Rumah Sakit (SIMRS) Berbasis Website di RSIA Kemang Medical Care Jakarta', *Jurnal Manajemen Informasi Kesehatan Indonesia*, 12(2), pp. 185–191. Available at: <https://doi.org/10.33560/jmiki.v12i2.746>.
- Zhou, L. *et al.* (2019) 'The mhealth app usability questionnaire (MAUQ): Development and validation study', *JMIR mHealth and uHealth*, 7(4), pp. 1–15. Available at: <https://doi.org/10.2196/11500>.

Article History:

Received: December 26, 2025; Revised: January 26, 2026; Accepted: April 14, 2026



APPENDIX

Details of USE Questionnaire Items for the LASIRAH Application

Table 2: Questionnaire Recapitulation Results

Factor	No	Statement	Value
Usefulness	1	The Lasirah application helps me understand the material well.	3.40
	2	This application is relevant to my needs as a postpartum/breastfeeding mother.	3.43
	3	The features in this application are beneficial to me.	3.27
	4	This application makes it easier for me to access the information I need.	3.50
	5	This application supports my goal of self-care and caring for my baby.	3.60
Complete Usefulness			17.20
Ease of Use	6	I didn't have any difficulty using this application.	3.23
	7	Navigation within this application is easy to understand.	3.40
	8	I can use this application without anyone else's help.	3.50
	9	The appearance of this application is easily recognizable and usable.	3.47
	10	I can complete tasks quickly using this application.	3.30
Complete Ease of Use			16.90
Ease of Learning	11	I quickly understood how this application works.	3.37
	12	The instructions in this app are clear and easy to follow.	3.33
	13	It didn't take me long to learn how to use this application.	3.40
	14	I feel confident using this application after trying it a few times.	3.30
	15	This app helps me learn in a fun way.	3.30
Complete Ease of Learning			16.70
Satisfaction	16	I am satisfied with my experience using the Lasirah application.	3.47
	17	I will recommend this app to other mothers.	3.33
	18	I feel comfortable using this application.	3.33
	19	I like the look and design of this application.	3.23
	20	Overall, I feel this app is high quality.	3.47
Complete Satisfaction			16.83
GENERAL OVERALL			67.63

Note: Scores are scored on a 1–4 Likert scale. The item details in this table complement the main discussion, which focuses on summarizing scores per dimension of the USE Questionnaire.



1. USE Questionnaire Measurement of the Aspect of Usefulness

$$(PK1) = \frac{17,20 \times 30}{4 \times 5 \times 30} = \frac{516}{600} = 86 \%$$

2. USE Questionnaire Measurement of Ease of Use Aspect

$$(PK2) = \frac{16,90 \times 30}{4 \times 5 \times 30} = \frac{507}{600} = 84,5 \%$$

3. USE Questionnaire Measurement of Ease of Learning Aspect

$$(PK3) = \frac{16,70 \times 30}{4 \times 5 \times 30} = \frac{501}{600} = 83,5 \%$$

4. USE Questionnaire Measurement of Satisfaction Aspects

$$(PK4) = \frac{16,83 \times 30}{4 \times 5 \times 30} = \frac{504,9}{600} = 84,15 \%$$

5. Overall USE Questionnaire Measurement

$$(PK) = \frac{67,63 \times 30}{4 \times 20 \times 30} = \frac{2028,9}{2400} = 84,54\%$$

Article History:

Received: December 26, 2025; Revised: January 26, 2026; Accepted: April 14, 2026