

Improvement of exclusive breastfeeding practices using the web-based mHealth application “Mama Bekping”

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ABSTRACT

Background: Exclusive breastfeeding (EBF) is the practice of giving only breast milk to infants aged 0–6 months without any additional food, except for vitamin supplements and medicines. The prevalence of exclusive breastfeeding among working mothers is significantly lower in urban areas due to inflexible work schedules, early return to work, short maternity leave, fatigue, and lack of support for expressing breast milk at the workplace. The web-based mHealth application “Mama Bekping” was proposed by researchers to provide educational features for working mothers regarding breast care, methods to increase milk supply, proper pumping techniques, and notifications to remind mothers to express breast milk.

Objectives: To determine whether the web-based mHealth application “Mama Bekping” can improve knowledge and adherence of working mothers in breast milk pumping.

Methods: This study used a quasi-experimental design with two group pretest–posttest. The sample consisted of 80 breastfeeding mother selected using purposive sampling, with a 1-month intervention. Parameters measured were maternal knowledge and adherence to breast milk pumping. Data normality was tested using the Shapiro–Wilk test, while the effect was analyzed using the dependent t-test.

Results: The average pumping frequency from week 1 to week 4 was consistent at 14 times per week. However, within 4 weeks, an increase was observed from 12–13 times to 15 times per week. The mean knowledge score before and after intervention showed a 20-point difference, with a minimum difference of 35 points and a maximum difference of 40 points. The dependent t-test revealed a $p\text{-value} = 0.000$ ($p < \alpha$), indicating a significant effect.

Conclusions: The web-based mHealth application “Mama Bekping” effectively increases the knowledge and adherence of working mothers in breast milk pumping, thereby supporting the success of exclusive breastfeeding programs

KEYWORD: *exclusive breastfeeding; mama bekping; mhealth; website; working mom*

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INTRODUCTION

Exclusive Breastfeeding (EBF) is the practice of giving only breast milk to infants aged 0–6 months without any additional food, except for vitamin supplements and medications(1). Exclusive breastfeeding can prevent mortality in as many as 1.3 million children aged 0–60 months(2). Providing breast milk exclusively can protect infants from various diseases such as diarrhea, pneumonia, and malnutrition, which are the leading causes of infant mortality(3).

Exclusive breastfeeding can reduce infant mortality rates by up to 13% in low-income countries, with 22% of neonatal deaths being preventable through breastfeeding within the first hour after birth(4). Data trends for exclusive breastfeeding during the 2022–2024 period indicate an increase, with 74.73% of children aged 0–5 months receiving exclusive breastfeeding. However, this rate tends to decline with higher household quartiles (63.69%), higher maternal education levels (74.70%), and in urban areas (74.91%)(5). The coverage of exclusive breastfeeding in Central Java decreased from 71.4% to 64.3%(6). In Gunungpati District, the exclusive

breastfeeding rate was 75.7%, making it one of the districts in Semarang City that did not meet the *Renstra* (Strategic Plan) target in 2023(7). The employment status of mothers is one of the contributing factors to the low rate of exclusive breastfeeding(8). The prevalence of exclusive breastfeeding among working mothers is considerably lower, ranging between 10.3% and 11.1% in urban areas(9). This is mainly because working mothers must balance their time between breastfeeding and professional responsibilities, which increases the risk of early breastfeeding cessation(10). Other challenges faced by working mothers include inflexible work schedules, early return to work, short maternity leave, fatigue, and insufficient support for breast milk expression in the workplace (11)(12).

In recent decades, advanced and widely accessible technologies have been utilized to support mothers, including the use of mobile health (mHealth). mHealth is defined as a component of electronic health that leverages information and communication technologies to deliver healthcare services(13). Previous studies have indicated that mobile-based healthcare (mHealth) is an effective solution for

improving healthy lifestyles by facilitating health behavior change among women(14).

The web-based mHealth application “Mama Bekping” was developed by the research team and includes features designed to educate working mothers about breast care, methods to increase breast milk production, proper breast milk pumping techniques, and notification reminders for mothers to pump milk. This study aims to examine the utilization of the web-based mHealth application “Mama Bekping” to support the Exclusive Breastfeeding Program among working mothers. The success of this utilization can be evaluated through the knowledge scores and compliance scores of mothers in pumping breast milk while at work.

MATERIALS AND METHODS

This study employed a quasi-experimental design with a two-group pretest–posttest approach. The study population consisted of all postpartum mothers residing in the working area of Gunungpati Public Health Center. A total of 80 postpartum mothers who met the predetermined inclusion and exclusion criteria were selected as samples and allocated into intervention and control groups. The intervention group received access to the “Mama Bekping” web-based platform in addition to standard breastfeeding care, whereas the control group received standard breastfeeding care only. The inclusion criteria were postpartum

mothers with infants aged 1 month, exclusively breastfeeding, employed outside the home, and willing to participate. The exclusion criteria were mothers working outside the city and those unwilling to continue the intervention. Data were collected using questionnaires and observation sheets in intervention group and control group. The study was conducted over a period of one month. Statistical analyses included the Kolmogorov–Smirnov test to assess data normality and the independent t-test to examine the effect of the “Mama Bekping” web-based application on employed postpartum mothers.

RESULTS AND DISCUSSION

RESULTS

Uni-variate Analysis

The univariate analysis included the frequency distribution and percentage of respondents' characteristics, as well as the mean frequency of breast milk pumping among working mothers. The univariate analysis is presented in **Table 1**.

Table 1 shows that the majority of respondents in both groups had a bachelor's degree as their highest educational attainment, totaling 24 individuals (60%) in the intervention group and 23 individuals (57.5%) in the control group. Most respondents in both groups were self-employed, comprising 14 individuals (35%) and 13 individuals (32.5%). The mean age of respondents in

Table 1. Frequency distribution of respondents' characteristics and mean breast milk pumping frequency

Variable	Intervention		Control	
	Frequency n=40	Percentage 100%	Frequency n=40	Percentage 100%
Education				
Senior High School	7	17.5	12	30
Diplome III	4	10	5	12.5
Bachelors Degree	24	60	23	57.5
Master Degree	4	10	0	0
Doctoral Degree	1	2.5	0	0
Occupation				
Private Employee	5	12.5	6	15
Entrepreneur	14	35	13	32.5
Trader	6	15	9	22.5
Factory Worker	6	15	8	20
Civil Servant	9	22.5	4	10
Variable	Mean	Min-max	Mean	Min-max
Ages	26	21-33	27	21-35
Weeks				
1	14.18	13-15	12.25	15-Oct
2	14.03	15-Dec	12.28	15-Oct
3	14.08	13-15	11.93	15-Sep
4	14.13	15-Dec	11.83	15-Jul

both groups fell within the reproductive age range; the intervention group had a mean age of 26 years, with a minimum of 21 years and a maximum of 33 years, whereas the control group had a mean age of 27 years, with ages ranging from 21 to 53 years.

In the intervention group, the average pumping frequency from Week 1 to Week 4 remained consistent at 14 pumping sessions per week, while the control group demonstrated a frequency ranging from 11 to 12 sessions per week. Nonetheless, a gradual increase was observed in the control group over the four-week period, from 12–13 sessions to 15 sessions per

week. These findings suggest that the web-based mHealth application “Mama Bekping” has the potential to improve pumping adherence among working mothers.

Bivariat Analysis

This study employed a questionnaire instrument that had previously undergone validity and reliability testing involving 30 participants whose characteristics were comparable to the actual respondents. The validity test results indicated that 20 out of 25 items demonstrated a calculated *r* value greater than the critical *r* value at a significance level of 0.05, thereby

Table 2. Utilization of web-based mHealth “Mama Bekping” for the knowledge of working mothers

Group	Mean Score	Min	Max	P-value*	P-value**	P-value***
Intervention						
Pretest	65	45	60	0.063	0	
Posttest	85	80	100	0.053		
Control						0.004
Pretest	65	45	60	0.063	0	
Posttest	76	80	95	0.066		

*Kolmogorov Smirnov Test **Dependen t-test ***Independen t-test

confirming that all retained items were valid. The reliability analysis using Cronbach's alpha yielded a coefficient of 0.959, indicating an exceptionally high level of internal consistency. This suggests that the questionnaire items were homogeneous and that the instrument is appropriate for data collection, as it exhibits a low risk of measurement error and demonstrates stable and consistent responses across items. Data normality was tested using the Kolmogorov smirnov test, and the independent t-test was conducted with a significance level of $p = 0.05$. The results are presented in **Table 2**.

Table 2 shows that the pretest and posttest data in both groups had $p > \alpha$ (0.05), demonstrating that the data were normally distributed. The paired t-test in the intervention group yielded a $p = 0.000$ ($\alpha < 0.05$), indicating a significant effect of the web-based mHealth “Mama Bekping” intervention combined with standard breastfeeding care on knowledge scores before and after the intervention. Similarly, the control group showed a $p = 0.000$ ($\alpha <$

0.05), suggesting that standard breastfeeding care alone also produced a significant improvement in pretest and posttest knowledge scores.

Although both groups demonstrated significant increases in knowledge, the intervention group exhibited a greater mean change, with a delta score of 20 points. The intervention group also achieved a higher maximum knowledge score, reaching 40 points. The independent t-test showed a $p = 0.004$ ($\alpha < 0.05$), indicating that the web-based mobile health “Mama Bekping” intervention was more effective in enhancing maternal knowledge compared to standard breastfeeding care alone.

DISCUSSION

Distribution of Respondents' Characteristics and Average Pumping Frequency

Based on the **Table 1** majority of respondents had their last education level at the bachelor's degree (S1), accounting for 24 participants (60%). Most respondents were self-employed, with a total of 14

participants (35%). The average age of respondents was 26 years, with a minimum of 21 years and a maximum of 33 years. The average pumping frequency from week 1 to week 4 remained consistent at 14 pumping sessions per week. However, within the four weeks, there was an increase in the frequency of pumping from 12–13 times to 15 times per week. This finding demonstrates that the web-based mHealth application “Mama Bekping” can enhance the compliance of working mothers in pumping breast milk.

The majority of respondents in this study held a bachelor's degree (S1). A study conducted in Saudi Arabia reported that among 499 women, those with higher education levels showed a significant influence on their knowledge of breast milk expression. This is due to several contributing factors, including the fact that education facilitates easier access to and comprehension of information from various aspects. Similarly, research in Kenya indicated that women with higher education levels were significantly associated with satisfactory knowledge about breast milk expression(15).

The majority of respondents in this study were self-employed. Research has reported that many workplaces and types of employment still lack adequate support for lactation. Such support may include both moral and technical aspects. Moral support consists of verbal and non-verbal encouragement, while technical support

includes access to refrigerators, breast pumps, breastfeeding rooms, and allocated breastfeeding time. A study in Australia revealed that women who expressed breast milk at the workplace were more prevalent due to the availability of flexibility for pumping or breastfeeding, supported by written policies promoting breastfeeding. However, another study reported that there was no significant relationship between the type of employment and the practice of expressing breast milk at work(16).

The average age of respondents in this study was 26 years, with a minimum age of 21 years and a maximum of 33 years. A study in Japan reported that mothers under the age of 35, whether primiparous or multiparous, achieved a success rate of exclusive breastfeeding up to 82.5%. Mothers who give birth at the age of over 35 are at a higher risk of not providing exclusive breastfeeding, as this age group is considered vulnerable. Therefore, active interventions are necessary to ensure the success of the exclusive breastfeeding program for six months.

The study conducted by Bai stated that pumping compliance is influenced by attitude and knowledge, with a p-value of 0.02. The attitudes underlying compliance in the workplace are affected by knowledge regarding breast engorgement when breast milk is not pumped, the availability of breast milk storage facilities, coworkers' perceptions of pumping, as well as the

inconvenience of carrying relatively heavy and numerous pumping equipment. Pumping is sometimes believed to be less effective compared to direct breastfeeding. However, mothers may choose to pump when their breasts are overly full, as this condition can make the baby uncomfortable while feeding. The expression pattern produced by a breast pump has been proven to be similar to that of a baby's natural suckling(17) This indicates that a breast pump that suits the mother can produce effective and comfortable milk expression, thereby helping to maintain breast milk production. Mothers who consistently pump according to an expression pattern have been shown to empty the breast by up to 75%, compared to babies who, on average, empty the breast by about 67% in a single feeding(17)(18). Mothers who pump breast milk are more likely to sustain breastfeeding for up to six months compared to those who do not pump.

Utilization of mHealth-Based Website “Mama Bekping” for Working Mothers' Knowledge

Base on the **Table 2** average knowledge score before and after the intervention showed a difference of 20 points, with a minimum difference of 35 points and a maximum difference of 40 points. The results of the dependent t-test indicated a p-value of 0.000 ($p < \alpha$), which means that the mHealth-based website

“*Mama Bekping*” significantly improved the knowledge of working mothers. Mobile health (mHealth) is a method recommended by the World Health Organization (WHO) to support healthcare services in the areas of counseling and health education (19). Mobile-based mHealth includes voice messages (20), text messages, or websites (21). It is considered a more cost-effective approach compared to conventional methods. Web- or online-based health interventions in several studies have been shown to improve breastfeeding initiation (22) and support the continuation of breastfeeding (23). Researchers conducted a study in 2024 stating that mHealth is now used for telemedicine practices in communities with smartphone access, providing opportunities to enhance counseling services, including support for exclusive breastfeeding(24)(25).

In another study, the educational features were focused solely on exclusive breastfeeding education(26)(27). It did not include instructions on pumping for working mothers or breast milk notifications. Previous research conducted by the investigators focused primarily on third-trimester pregnant women to prepare for exclusive breastfeeding (19). In this study, the web-based Mobile Health application “*Mama Bekping*” was designed for postpartum mothers with one-month-old infants who were preparing to end their maternity leave. The advantage of this solution lies in utilizing “*Mama Bekping*” to

support working mothers, featuring education on breast care, strategies to increase breast milk production, guidance on breast milk pumping for working

mothers, and pumping notifications. The web-based mHealth “Mama Bekping” is illustrated in **Figure 1, 2, and 3.**

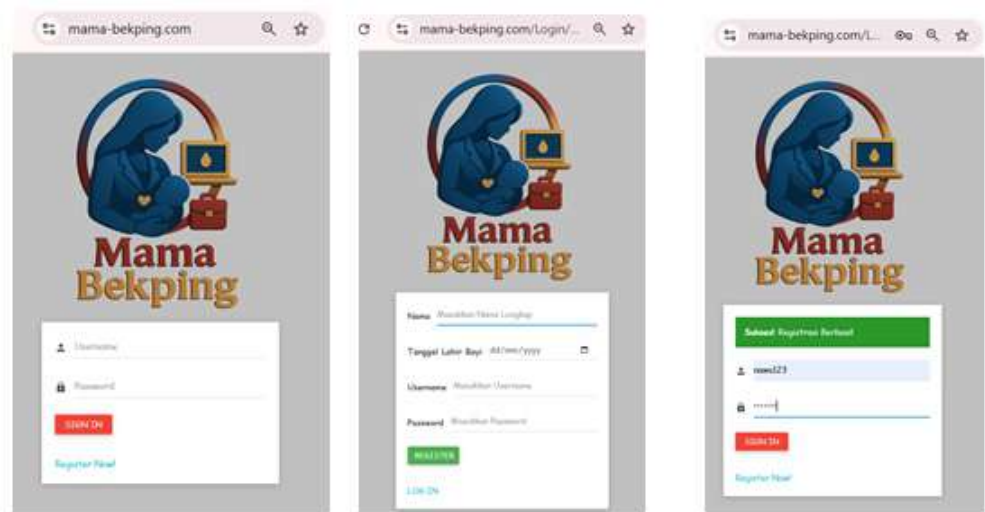


Figure 1. Login Website Mama Bekping

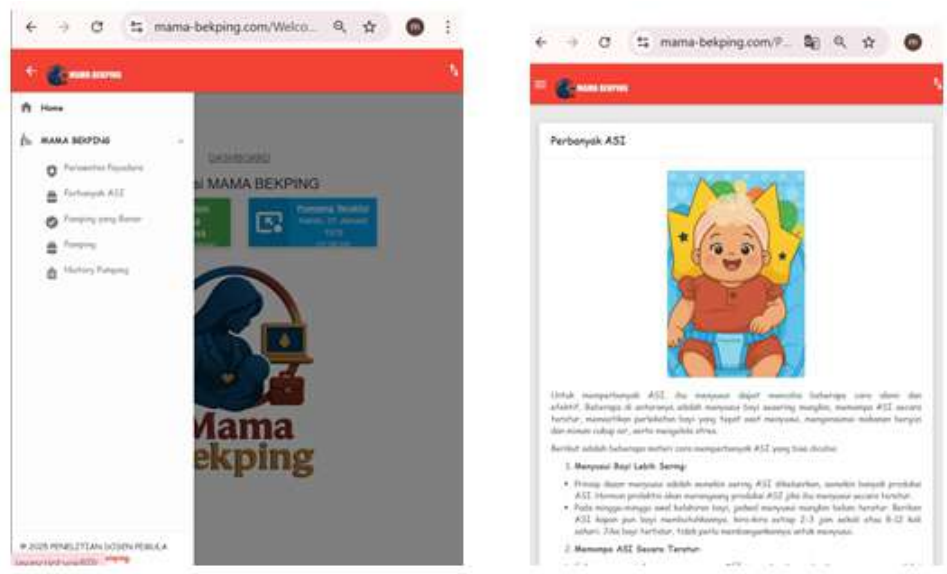


Figure 2. Education Feature in Website Mama Bekping

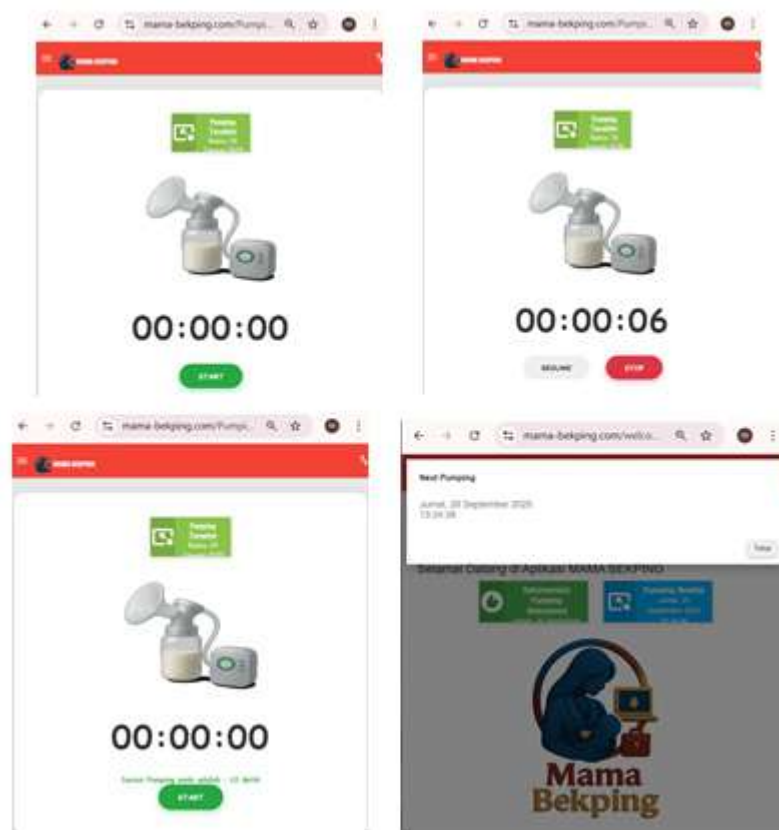


Figure 3. Pumping Alarm in Web-Based mHealth Application “Mama Bekping”

Working mothers who do not receive adequate support from their husbands, family, colleagues, or workplace may face obstacles in the breastfeeding process. In 2019, it was reported that 47.1% of women participated in the workforce, highlighting the need for government and company or foundation policies to enforce exclusive breastfeeding programs. Women have the right to balance their role as mothers in providing proper nutrition for their infants while also developing their professional skills and career values(16).

Every form of education influences both knowledge and attitudes, and many educational interventions also affect self-

efficacy. Previous research reported a difference in knowledge after providing education through mHealth media of 5.67 points, with a $p\text{-value}=0.000(14)$. However, our study demonstrated changes in the parameter of compliance with breast milk pumping.

During the study, most respondents were highly interested in receiving education and practicing pumping using this application to maintain exclusive breastfeeding even while working. Six respondents reported that they had accessed educational content through social media but were concerned about inaccurate information (hoaxes). Although

many studies have examined smartphone-based mHealth, they have largely focused only on feature feasibility and usability(28). The use of mHealth applications for breastfeeding is ideally initiated in the late stages of pregnancy.

However, due to time constraints, this study was conducted only with mothers who were nearing the end of their maternity leave and preparing to return to work. Working mothers often face issues such as incomplete breast emptying, which requires ongoing encouragement and reassurance that breast milk is the best nutrition for their baby and follows the principle of supply by demand. Therefore, further research is needed on applications that include features such as breast massage to increase milk production, as well as Q&A services to better support mothers.

CONCLUSION AND RECOMMENDATION

The conclusion of this study is that the web-based mHealth application “*Mama Bekping*” increases the knowledge and compliance of working mothers in supporting the exclusive breastfeeding program through pumping. The Gunungpati Health Center is expected to coordinate with the researchers to disseminate the “*Mama Bekping*” website to postpartum mothers who are on maternity leave, so that it can assist them in continuing to provide breast milk to their babies after returning to work through expressed breast milk management by pumping.

REFERENCES

1. Mekebo GG, Argawu AS, Likassa habte T, Ayele W, Wake SK, Bedada D, et al. Factors Influencing Exclusive Breastfeeding Practice among Under-six Months Infants in Ethiopia. *BMC Pregnancy Childbirth*. 2022;22(630). <https://doi.org/10.1186/s12884-022-04955-x>
2. Pretorius CE, Asare H, Kruger HS, Gununeit J, Siziba LP, Ricci C. Exclusive Breastfeeding, Child Mortality, and Economic Cost in Sub-Saharan Africa. *American Academy of Pediatrics*. 2021; 147(3). <https://doi.org/10.1542/peds.2020-030643>
3. Pratiwi P, Atmaka DR, Sutoyo DAR, Mahmudiono T. The Effectiveness of Smartphone-Based Nutrition Education Intervention in Successful Practice of Exclusively Breastfeeding: A Meta-Analysis. *Amerta Nutrition*. 2023;7(4):615–25.<https://doi.org/10.20473/amnt.v7i4.2023.615-625>
4. Irianti D, Pusparina I, Ikasari FS. Efikasi Diri Menyusui Ibu Bekerja Berpedan Penting dalam Pemberian ASI Eksklusif. *Jurnal Skala Kesehatan*. 2023;14(1):66–72.<https://doi.org/10.31964/jsk.v14i1.377>
5. Badan Pusat Statistik. Profil Kesehatan Ibu dan Anak 2024 [Internet]. 2024. Available from: <https://www.bps.go.id>
6. Tengah DKPJ. Profil Kesehatan Jawa Tengah 2023 [Internet]. Semarang;

2023. Available from: https://dinkesjatengprov.go.id/v2018/dokumen/1Profil_Kesehatan_2023/files/downloads/Profil_Kesehatan_Jawa_Tengah_2023.pdf
7. Dinas Kesehatan Kota Semarang. Profil Kesehatan 2023 Dinas Kesehatan Kota Semarang [Internet]. Semarang; 2023. Available from: <https://pustakadata.semarangkota.go.id/upload/pdf/463-buku-profil-kesehatan-tahun-2023.pdf>
 8. Ickes SB, Sanders H, Denno DM, Myhre JA, Kinyua J, Singa B, et al. Exclusive Breastfeeding among Working Mothers in Kenya: Perspectives from Women, Families and Employers. *Maternal & Child Nutrition*. 2021; 17(4). <https://doi.org/10.1111/mcn.13194>
 9. Mbuthia JW. Factors Influencing Exclusive Breastfeeding among Working Mother at Kangemi Informal Settlement, Nairobi. University of Nairobi; 2022.
 10. Valdez EYP. Breastfeeding Women Returning to Work in a Service Sector Environment. The University of Texas Health Science Center at San Antonio; 2022.
 11. Nkrumah GA, Antwi MY, Nkrumah J, Gbagbo FY. Examining working mothers' experience of exclusive breastfeeding in Ghana. *International Breastfeeding Journal*. 2020;15(56):1–10. <https://doi.org/10.1186/s13006-020-00300-0>
 12. Ma, E., Wu, L., Yang, W., & Xu, S. (T.). (2021). Hotel work-family support policies and employees' needs, concerns and challenges—The case of working mothers' maternity leave experience. *Tourism Management*, 83, Article 104216. <https://doi.org/10.1016/j.tourman.2020.104216>
 13. Kabongo EM, Mukumbang, Ferdinand C, Delobelle P, Nicol E. Explaining the impact of mHealth on maternal and child health care in low- and middle-income countries: a realist synthesis. *BMC Pregnancy Childbirth*. 2021;21(196). <https://doi.org/10.1186/s12884-021-03684-x>
 14. Seyyedi N, Rahmatnezhad L, Mesgarzadeh M, Khalkhali H, Seyyedi N, Rahimi B. Effectiveness of a Smartphone-based Educational Intervention to Improve Breastfeeding. *International Breastfeeding Journal*. 2021;16(70). <https://doi.org/10.1186/s13006-021-00417-w>
 15. Ademba PW, Irima G, Musoke R. Knowledge attitudes and practice of breastmilk expression and storage among working mothers with infants under six months of age in Kenya. *International Breastfeeding Journal*. 2022;17(33). <https://doi.org/10.1186/s13006-022-00469-6>
 16. Castetbon K, Berquier JB, Salanave B. Combining Breastfeeding and Work:

- Findings from the Epifane population-based Birth Cohort. *BMC Pregnancy Childbirth*. 2020; 20(110). <https://doi.org/10.1186/s12884-020-2801-x>
17. Gardner H, Kent JC, Lai CT, Geddes DT. Comparison of maternal milk ejection characteristics during pumping using infant-derived and 2-phase vacuum patterns. *International Breastfeeding Journal*. 2019;14(47). <https://doi.org/10.1186/s13006-019-0237-6>
 18. Gridneva Z, Warden A, McEachran JL, Lai CT, Perrella SL, Geddes DT. Human milk expression technologies: an evaluation of efficacy and comfort of hands-free, in-bra, breastmilk collection pump set. *Clinical Nutrition Open Science*. 2023;49:28–36. <https://doi.org/10.1016/j.nutos.2023.04.002>
 19. Dewi MM, Djamil M, Anwar MC. Education M-Health Android-based Smartphone Media Application “Mama ASIX” for Third Trimester Pregnant Women as Preparation for Exclusive Breastfeeding. *Journal of Health Promotion and Behavior*. 2019;4(2):98–109.
 20. Wei Y, Zheng P, Deng H, Wang X, Li X, Fu H. Design Features for Improving Mobile Health Intervention User Engagement: Systematic Review and Thematic Analysis. *Journal of Medical Internet Research*. 2020;22(12). <https://doi.org/10.2196/21687>
 21. Doan TTD, Binns C, Pham NM, Zhao Y, Dinh TP, Bui TTH, et al. Improving Breastfeeding by Empowering Mothers in Vietnam: A Randomised Controlled Trial of a Mobile App. *International Journal of Environmental Research and Public Health*. 2020;17(15). <https://doi.org/10.3390/ijerph17155552>
 22. Dick JA, Sun W, Newport A, Xie F, Micallef J, Dubrowski A. Maternal and co-parental experiences and satisfaction with a co-parenting breastfeeding eHealth intervention in Canada. *Journal of Pediatric Nursing*. 2023;72:135–45. <https://doi.org/10.1016/j.pedn.2023.07.013>
 23. Lewkowits AK, Cahill AG. Mobile Health Approaches to Breastfeeding. *Clinical Obstetrics and Gynecology*. 2021;64(2):384–91. <https://doi.org/10.1097/grf.0000000000000606>
 24. Dewi MM, Ahmaniyah, Rochkmana MJ. Mobile Health Berbasis Smartphone untuk Kemampuan Ibu Menyusui secara Eksklusif. *Wiraraja Medika*. 2024; 14(2). <https://doi.org/10.24929/fik.v14i2.3679>
 25. Lewkowirtz AK, Lopez JD, Werner EF, Ranney ML, Macones GA, Rouse DJ, et al. Effect of a Novel Smartphone Application on Breastfeeding Rates Among Low-Income, First-Time Mothers Intending to Exclusively Breastfeed: Secondary Analysis of a Randomized Controlled Trial.

- Breastfeeding Medicine [Internet]. 2021;16(1):59–67.<https://doi.org/10.1089/bfm.2020.0240>
26. Elvina A, Suryantara B. Efektivitas Aplikasi berbasis Android “Busui Cerdas” untuk Meningkatkan Pengetahuan Ibu Menyusui tentang Pemberian Asi Eksklusif. *Jurnal Kebidanan dan Keperawatan Aisyiyah*. 2022;18(1):85–95.<http://dx.doi.org/10.31101/jkk.1630>
 27. Sari P, Herawati DMD, Dhamayanti M, Ma'ruf TLH, Hilmento D. The Effect of Mobile Health (m-Health) Education Based on WENTER Application on Knowledge, Attitude, and Practice (KAP) Regarding Anemia among Female Students in a Rural Area of Indonesia. *Heal MDPI*. 2022;10(10). <https://doi.org/10.3390/healthcare10101933>
 28. Inal Y, Wake JD, Guribye F, Nordgreen T. Usability Evaluations of Mobile Mental Health Technologies: Systematic Review. *Journal of Medical Internet Research*. 2020; 22(1). <https://doi.org/10.2196/15337>