

## **Si KB Pintar: An Innovative Media, Empowering Mothers and Husbands for Contraceptive Use and Stunting Prevention**

**Lia Nurcahyani<sup>1,2\*</sup>, Dyah Widiyastuti<sup>2</sup>, Arief Tarmansyah Iman<sup>3</sup>, Yeni Fitrianiingsih<sup>2</sup>**

<sup>1</sup>Doctoral Study Program in Medical Science, Faculty of Medicine, Universitas Padjadjaran, Bandung, Indonesia

<sup>2</sup>Department of Midwifery, Poltekkes Kemenkes Tasikmalaya, Tasikmalaya, Indonesia

<sup>3</sup>Department of Medical Records and Health Information, Poltekkes Kemenkes Tasikmalaya, Tasikmalaya, Indonesia

\*Email Correspondence: [lianurcahyani17@gmail.com](mailto:lianurcahyani17@gmail.com)

---

### **ARTICLE INFO**

#### **Article History:**

Received March 13, 2026

Accepted May 25, 2026

Published online May 30, 2026

#### **Keywords:**

*Si KB Pintar;*

*Educational Media;*

*Mother and Husband;*

*Contraceptive use;*

*Stunting prevention*

### **ABSTRACT**

The prevalence of stunting in Indonesia is still high. One of the factors that indirectly causes stunting is maternal factors due to the short distance between births, so, one of the efforts to accelerate the prevention and reduction of stunting is postpartum contraceptive. The problems with the use of contraceptives are *unmet need*. One of the factors causing *unmet need* is family planning education and counselling, which is not optimal. Decision-making on family planning is mainly done by the husband, who rarely accompanies his wife during counselling. Researchers have produced Si KB Pintar as a medium that clients and husbands can use to discuss contraceptives after being given family planning counselling. The purpose of the research is to determine the perception and use of contraceptive in Si KB Pintar users. This study uses a mixed-methods design in Cirebon City, Indonesia. The sample used a snowball sampling of 19 people interviewed. Data collection uses semi-structured interviews. The research instruments included Si KB Pintar, in-depth interview guides, voice recorders, and questionnaires. Inductive thematic analysis was carried out, and the data was grouped into several themes, quantitative data (contraceptive use) were analyzed using descriptive statistics. According to the informant, the appearance Si KB Pintar is attractive, complete information, easy to use and understand, a medium for discussing with the husband, very useful, increasing the knowledge of mothers and husbands about family planning, and helping to make decisions about family planning. Most informants (42%) use the long-term contraceptive method (IUD and Implant).

---

### **INTRODUCTION**

Stunting is a condition that can cause increased pain and death in children <sup>1</sup> and is *double burden* malnutrition which has a very detrimental impact on health and economic productivity. <sup>2</sup> Based on Presidential Regulation of the Republic of Indonesia number 72 of 2021, the target stunting prevalence in 2024 is 14% <sup>3</sup>, while based on the 2024 Indonesian Nutrition Status Survey (SSGI), the prevalence of stunting in Indonesia is 19.8% <sup>4</sup>, so it has not reached the target. All city districts in West Java Province since 2022 have been designated as priority loci for stunting reduction, including in Cirebon City.<sup>5</sup> The acceleration of stunting reduction must be carried out in a convergent, holistic, integrative and quality manner through multi-sector cooperation by intensifying assistance for families

---

---

at risk of stunting One of the factors that cause indirect stunting is maternal factors, including the short distance between births, so that one of the services in accelerating stunting reduction is postpartum contraceptives services. The problems with the use of contraceptives are *unmet need*. In the last 10 years, data trend of *unmet needs has been* stagnant at 11%, while the target in 2024 is 7.4% <sup>6</sup>. One of the causes of its high *unmet need*, is the public's understanding of family planning, including side effects, handling complications and failures, is still low because the provision of education and counselling is not optimal enough to answer the needs of the community, especially the provision of comprehensive, applicable and readily available educational materials. According to *Method Information Index*, the percentage of family planning counselling quality is 30.4% <sup>7</sup>. This indicates that counselling has not been carried out optimally. The phenomenon also occurs in Sierra Leone, where about 37% of young women do not receive quality family planning counselling services<sup>8</sup>. Family planning counselling should be given during pregnancy so that mothers still have more time to choose contraceptive methods <sup>9</sup>. Research has proven the effectiveness of providing family planning counselling since pregnancy <sup>10-13</sup> Improving a better understanding of contraception through quality counselling can improve perceptions, thereby encouraging rational, effective and efficient use of contraception <sup>14</sup>.

For counselling to be optimal, a tool is needed for counsellors. The tool issued by the Ministry of Health of the Republic of Indonesia, which refers to WHO, is decision-making tools for family planning.flip sheet. Information was obtained about the effectiveness of the use of decision-making tools for family planning sheets with family planning on contraceptive use <sup>15,16</sup> Ironically, although several studies have proven that the use of decision-making tools for family planning flip sheets with birth control has a significant effect on the use of contraception, the use of decision-making tools for family planning flip sheets is still relatively low because it is known to have limitations. Information obtained from six midwives in Cirebon City, the decision-making tools for family planning flip sheet with birth control has never been used for family planning counselling. It is only a display and is only used when explaining the menstrual cycle because its use is considered difficult and takes a long time, so they are not confident in doing family planning counselling, even though almost all midwives have participated in training on the use of the decision-making tools for family planning flip sheet with birth control <sup>17</sup>. Innovation is needed through appropriate technology to make it easier for midwives to use decision-making tools for family planning. The use of technology-based contraceptive decision aids to support contraceptive decision-making has a positive effect on the use and continuation of contraceptive use, knowledge, and *self-efficacy* <sup>18</sup>. In the previous study, the author produced an innovative decision-making tool for the family planning application, which refers to the decision-making tool for family planning flip sheet, has been shown to increase contraceptive use <sup>17,19,20</sup>.

The husband's role in making decisions about family planning is significant<sup>21</sup>. Permission from the husband to use contraception is related to unmet need<sup>22</sup>. This is in line with research that states that the wife's helplessness in making decisions is the cause of family planning dropout<sup>23</sup>. Based on this, the husband's involvement is essential in counselling<sup>24</sup>. Other research concluded that there is a relationship between husband support, so it is hoped that service providers can involve husbands when providing counselling or family planning education<sup>25</sup>. Husbands rarely accompany their wives to health services during family planning counselling for various reasons, including embarrassment to consult family planning problems, the location of remote health centers, the husband's busy factors and the husband's lack of awareness of the importance of family planning programs<sup>25</sup>. Based on the recommendations of research that has been carried out by researchers, with this phenomenon, it is necessary to innovate media that can be used by clients and husbands to discuss contraceptives at home after being counseled by midwives. Researchers have conducted basic research that produces the output of 'Si KB Pintar'<sup>20</sup>. can be used by clients and husbands, based on smartphones as an innovation of appropriate science and technology products in the health sector which is expected to increase the knowledge of mothers and husbands about family planning, can help mothers in making decisions about contraception, so that it can prevent *unmet need* which will contribute to reducing the Maternal Mortality Rate. The purpose of this study is to find out the perception and use of contraception in postpartum mothers who have used Si KB Pintar as an innovation in family planning education media.

## **MATERIALS AND METHODS**

This study uses a mixed-methods design to find out the perception of informants about the use of Si KB Pintar as an educational media innovation supported by quantitative data to obtain data on the use of postpartum contraception. The research was conducted in Cirebon City, Indonesia. This study is a follow-up to previous research conducted by the researcher<sup>20</sup>. The population was 55 postpartum mothers 42 days after childbirth in the previous study which had received contraceptive counselling by midwives using the media decision-making tool for family planning application at >37 weeks gestation and had used Si KB Pintar at home. Data collection used snowball sampling totalling 19 informants. Data collection was conducted through in-depth interviews with informants about the perception of using Si KB Pintar and data collection on using family planning after childbirth. The research instruments include Si KB Pintar, which is an application that can be used by clients, which contains information about contraceptives, which refers to information about contraceptives in the decision-making tool for family planning from World Health Organization. Si KB Pintar consists of a two-part menu, namely contraceptive methods that consist of long-term contraceptives that are very effective (Intrauterine Contraceptives, Implants, Tubectomy and Vasectomy), very effective (pills,

condoms, Lactation Amenorrhea Method, and injections), and effective with correct use (fertile period awareness method and interrupted intercourse method). The following menu is additional information containing information about HIV/AIDS, pregnancy worries and emergency contraception. The following instrument is an in-depth interview guide about the informant's perception of the use of Si KB Pintar, voice recorders and questionnaires on contraceptive use. All interviewers already have experience in conducting qualitative research. The interviewer recorded using a digital audio recorder. The interviewer took notes during the interview process. This process helps cross-check information from the transcript interview process. In-depth interview transcription becomes a source of information for qualitative data based on themes developed based on interview guidelines. Data processing is carried out based on interview transcripts from recording the interview process. The obtained description or record is refined and completed as a written transcript. Data analysis uses content analysis by grouping results based on available themes. Meanwhile, grouped themes are interpreted, and conclusions are derived for each topic. This research has received *ethical approval* from the Health Research Ethics Commission of the Ministry of Health of Tasikmalaya. Each participant was given informed consent regarding their willingness to become a respondent. The interview is conducted at an agreed time and place at the interviewee's home.

## RESULTS

The characteristics of the respondents are that the majority are aged 20-35 years, as many as 15 respondents (79%), one respondent (5%) is aged < 20 years and three respondents (16%) are aged > 35 years. For Parity, the majority were multiparas, 12 respondents (63%), primiparas, 6 respondents (31%), and grandemultiparas, one respondent (5%).

Based on content analysis, two themes were obtained, which is perception about Si KB Pintar and ease of use of Si KB Pintar which can be seen based on Figure 1, it can be concluded that the informant's perception of Si KB Pintar is attractive, complete, easy to use and understand, media to discuss with the husband, very useful, increases the knowledge of mothers and husbands about family planning, and helps make decisions about family planning

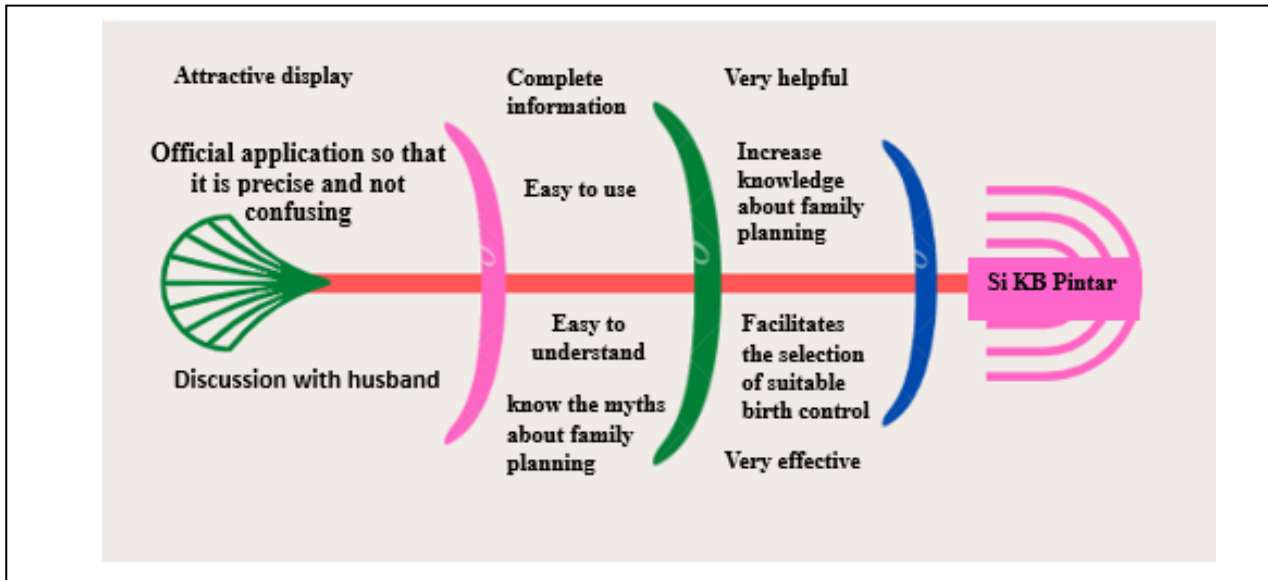


Figure 1. User Perception of Si KB Pintar

The information contained in Figure 1 is the result of *in-depth interviews* with 19 informants as follows:

*Si KB Pintar for ordinary people who don't know anything about birth control, it is beneficial, ma'am....(Informant 1)*

*It is beneficial for choosing family planning; the husband can also see how it works. (Informant 2)*

*It is beneficial so we can share it with my husband; the difference is how effective the pill is, how the IUD can be read together, learn together, and add knowledge for my husband and family. (Informant 3)*

*It's advantageous, ma'am, so we know what family planning.. We talked to my husband about family planning, especially since I was pregnant with my first child. My husband is very supportive of my choice..this application is practical... (Informant 4)*

*Yes, it's useful, ma'am, for our knowledge that we didn't know before, so we know (Informant 5)*

*When I was pregnant in the third trimester, I was given Si KB Pintar. Finally, I read it, Alhamdulillah. When I gave birth, I could find a suitable birth control because I read the application (Informant 6)*

*It was beneficial and more informative, which I didn't know anything about, so I knew. . (Informant 7)*

*I think Si KB Pintar is good... it's easier to be able to understand birth control. (Informant 10)*

*The first is that we know more about birth control, so it's easier to understand it, and we can also know the side effects of each birth control (Informant 11)*

*For those who don't know, family planning is beneficial, simple, and easy, and everything is there. (Informant 12)*

*Find out the advantages and disadvantages of birth control regarding implants, injections, pills, and others (Informant 13)*

*The application is beneficial... so I know about family planning...(Informant 14)*

*The app attracts its appearance... easy to understand the contents... .. I use Implant Birth Control (Informant 15)*

*The choice of family planning should be discussed with the husband. (Informant 16)*

*Very useful... Easy to wear. It's not as tricky as other applications. I like to read with my husband when my husband comes home from work...(Informant 17)*

After being counselled and reopening Si KB Pintar, the client became aware of myths about birth control, so at first, he was hesitant to choose an IUD, but finally solidified the choice.

*So I was hesitant to choose birth control because, at first, I wanted to inject birth control, and then I wanted to try IUDs. (Informant 8)*

The informant said that Si KB Pintar is easy to use based on the following statements:

*It's clear that there is also a menu; click it, and everything will come out. It's not complicated either; it's straightforward, ma'am. (Informant 1)*

*It's easy, ma'am; the information we want just clicks, and it appears immediately (Informant 5)*

*The look makes it easier... It is not difficult. Easy to understand. Make it easier for me... (Informant 14)*

*Easy to use and attractive... Complete about the information ( Informant 15)*

Based on Graph 1, most informants (8 people = 42%) used Long-Term Contraceptive Methods (Implants and Intrauterine Devices). There were three informants (16%) used pil.

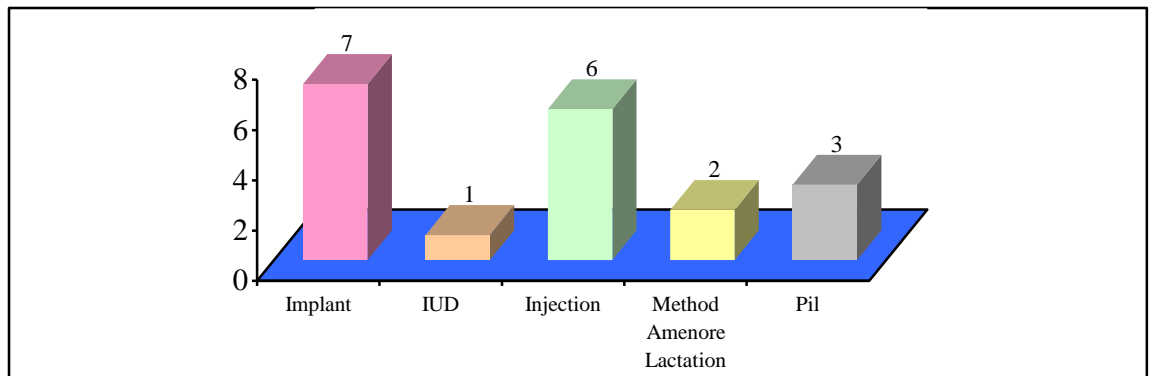


Figure 2. Contraceptive Use

## DISCUSSION

Si KB Pintar is designed as an innovation education media with the aim that clients can use this application to discuss with their husbands or families after the provision of family planning counselling by midwives or other service providers and family planning counselling should be given from the pregnancy period. Various studies have shown that family planning counselling since pregnancy will affect the use of contraception, compared to counselling only after childbirth. Contraceptive counselling in pregnancy and postpartum can increase contraceptive use<sup>26-28</sup>. If family planning counselling is given since pregnancy, then the mother is still focused and still has time to choose a contraceptive method, while if she has given birth, then she has started to focus on caring for the baby. All informants in this study have been given family planning counselling by midwives using the decision-making tools for family planning application at the > 37 weeks of pregnancy, then get the Si KB Pintar to be used at home as a medium for discussion with husbands or families.

Si KB Pintar is an application *smartphone* Android-based. Nowadays, smartphones are no longer a strange thing for the wider community<sup>29</sup>. Engaging in educational media is very important to increase client interest in using these media. Attractive means fun, so clients are encouraged to see and pay attention to the health messages given. In addition, according to the informant, the information on Si KB Pintar is complete. Si KB Pintar contains information about contraceptives, which includes medical requirement criteria, side effects, how to use, revisit time, and things to remember that refer to the decision-making tools for family planning flip sheet. Si KB Pintar is easy to use and understand. The results of this study follow research<sup>30</sup>, which evaluates the acceptance of the

---

applications *miPlan* in family planning clinics in African-American and Latino women aged 15 to 24; the results showed that the app was acceptable, easy to use, very informative, and practical in providing health information. Other research has resulted in mobile apps as a contraceptive decision-making tool used by women working in the military, as well as demonstrating client and provider satisfaction <sup>31</sup>.

*My Birth Control*, which is a contraceptive decision-making tool used during counselling, with the results of 96% of women feeling helped in choosing a family planning method <sup>32</sup>. The application is acceptable and shows user satisfaction. Other supporting research was conducted which states that My Contraceptive Choice is a useful decision-making tool for family planning and has met users' needs <sup>33</sup> which is acceptable and client-centric and helps with family planning decision-making <sup>34</sup>.

The following information obtained from the research results was that the informant used Si KB Pintar as a medium to discuss with her husband. As previously explained, the 2017 Health Demographic Survey data shows the significant role of the husband in making decisions with family planning, with a large percentage of decision-making with family planning carried out by the husband 57% <sup>35</sup>. Based on this data, the husband should be exposed to information and education about family planning. Still, the husband rarely accompanies his wife to health services when providing family planning counselling for various reasons, including embarrassment to consult on family planning problems, the location of the health centre far away, the husband's busy factors and the husband's lack of awareness of the importance of the family planning program for the family <sup>25</sup>. With the existence of Si KB Pintar, even though the husband does not accompany them when counselling clients, clients can discuss with their husbands using the media. The research results that support it state that the husband's involvement is essential in counselling <sup>24</sup>. Another supporting study was conducted by Habibi et al. with the results that there was a relationship between the husband's support with the choice of contraceptives, so it is hoped that service providers can involve husbands when providing counselling or education of birth control <sup>25</sup>. Research in Nepal, individual and family factors influence women's contraceptive decisions.<sup>36</sup> According to the informant, Si KB Pintar is instrumental in increasing the knowledge of mothers and husbands and assisting in decision-making with family planning. The results of this study follow research in Makassar, which produced an application to increase the knowledge of hormonal birth control acceptors, namely, the android-based Mapaccing application <sup>37</sup>. Other supporting research concludes that the app *miPlan* in *Midwestern cities* can increase contraceptive knowledge and intention <sup>38</sup>. Other research conducted by <sup>39</sup> that develops *Plan A Birth Control*, mobile applications to provide birth control information by offering accurate medical information, with the results of research that the application has an impact on very effective contraceptive decision-making, Other research results in the application "*MyContraception*" is a

---

contraceptive application that helps users make informed decisions about contraceptive choices, monitor menstrual cycles, fertile periods, use of contraceptive methods, and keep medical history records<sup>40,41</sup>. The development of the app was further carried out in Jordan to assess the impact of the use of the app on four aspects of oral contraceptive use, including usage habits, awareness and safety of compliance, and to help women make the most informed decisions<sup>42</sup>. The difference with previous research is that the material in Si KB Pintar refers to the material contained in the decision-making tool for family planning flipchart, so that it is standardized.

Based on the study's results, information was also obtained that most of the informants (42%) used the Long-Term Contraceptive Method. Participation in Long-Term Contraceptive Methods in Indonesia is still low, with the prevalence, according to Demographic Health Survey baseline data in 2012, at 18.3%, in 2019 at 21.39%, while the target in 2024 was 28.39%<sup>43</sup>. If you look at the number of Long-Term Contraceptive Methods used in this study, it has exceeded the target. The results of the supporting research were carried out<sup>44</sup>. The use of technology-based contraceptive decision aids to support contraceptive decision-making has a positive effect on the use and continuation of contraceptive use, knowledge, and *self-efficacy*<sup>18</sup>. Digital technology is recommended to address the challenges faced in the health system and to improve the coverage and quality of family planning services and practices<sup>45</sup>. The results of this research are expected to contribute to increasing knowledge and public understanding of family planning, including side effects and handling of complications, as well as assisting in decision-making on family planning for couples of childbearing age so that it will have an impact on increasing the use of modern contraception and decreasing *unmet need* in Indonesia. The advantage of this study is that the reference used for the creation of Si KB Pintar is a reference from family planning counselling media recommended by the World Health Organization, namely the decision-making tools for family planning. In addition, the app can be used by clients so that they can discuss again at home with their husbands or families to solidify their choice of family planning after receiving counselling from midwives or other service providers. Si KB Pintar is available at the *Play Store*, so it is expected to be a family planning educational media that is applicative and easy to obtain. The limitation of this study is that the use of Si KB Pintar has not been able to measure stunting prevention directly, so it can be used as a recommendation for future research.

## CONCLUSION

According to the informant, the appearance Si KB Pintar is attractive, complete information, easy to use and understand, a medium for discussing with the husband, very useful, increasing the knowledge of mothers and husbands about family planning, and helping to make decisions about family planning. The majority of informants use the long-term contraceptive method. The results of this research can be used as a

---

consideration for policymakers so that Si KB Pintar can be used as an educational medium for family planning service providers, especially when providing education outside the building.

## BIBLIOGRAPHY

1. Prendergast, A. J., & Humphrey JH. The stunting syndrome in developing countries. *Pediatr Int Child Heal.* 2014;34(4):250–65.
2. BKKBN. Peraturan Badan Kependudukan dan Keluarga Berencana Nasional Republik Indonesia Nomor 12 Tahun 2021 tentang Rencana Aksi Nasional Percepatan Penurunan Angka Stunting Indonesia Tahun 2021-2024 [Internet]. 2021. Available from: [http://books.google.com.co/books?id=iaL3AAAAQBAJ&printsec=frontcover&dq=intitle:Market+research+in+Practice+inauthor:hague&hl=&cd=1&source=gbs\\_api%0Apapers3://publication/uuid/4EEA28E9-41A0-4677-9426-7B552915D62F%0Ahttps://doi.org/10.1080/23311886.2019.16](http://books.google.com.co/books?id=iaL3AAAAQBAJ&printsec=frontcover&dq=intitle:Market+research+in+Practice+inauthor:hague&hl=&cd=1&source=gbs_api%0Apapers3://publication/uuid/4EEA28E9-41A0-4677-9426-7B552915D62F%0Ahttps://doi.org/10.1080/23311886.2019.16)
3. Kementerian Sekretariat Negara RI. Peraturan Presiden Republik Indonesia Nomor 72 Tahun 2021 Tentang Percepatan Penurunan Stunting. 2021.
4. Kementerian Kesehatan Republik Indonesia. Survei Status Gizi Indonesia (SSGI) 2024 Dalam Angka. 2025.
5. Bapedda Provinsi Jawa Barat. Potensi Kerjasama dan Pemberdayaan melalui Program Kuliah Kerja Nyata (KKN) Tematik Dalam Rangka Percepatan Penurunan Stunting di Jawa Barat (Jabar Zero New Stunting). 2022.
6. Kementerian Kesehatan RI. Peraturan Menteri Kesehatan Republik Indonesia Nomor 21 Tahun 2020 tentang Rencana Strategis Kementerian Kesehatan Tahun 2020-2024. 2020.
7. FP2020 Global. FP 2020, Momentum At Momentum At Midpoint 2015-2016 [Internet]. 2020. Available from: [http://2015-2016progress.familyplanning2020.org/uploads/05/15/FP2020\\_DIGITAL\\_Spreads\\_LoRes.pdf](http://2015-2016progress.familyplanning2020.org/uploads/05/15/FP2020_DIGITAL_Spreads_LoRes.pdf)
8. Sserwanja Q, Nuwabaine L, Kamara K, Musaba MW. Determinants of quality contraceptive counselling information among young women in Sierra Leone: insights from the 2019 Sierra Leone demographic health survey. *BMC Womens Health* [Internet]. 2023;23(1). Available from: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159446792&doi=10.1186%2Fs12905-023-02419-8&partnerID=40&md5=299cf03001b34423ebb5f1ad442c6834>
9. Kementerian Kesehatan Republik Indonesia. Buku KIA Kesehatan Ibu dan Anak [Internet]. Kementerian kesehatan RI. 2020. Available from: <https://kesmas.kemkes.go.id/konten/133/0/061918-sosialisasi-buku-kia-edisi-revisi-tahun-2020>
10. Zapata LB, Murtaza S, Whiteman MK, Jamieson DJ, Robbins CL, Marchbanks PA, et al. Contraceptive counseling and postpartum contraceptive use. *Am J Obstet Gynecol.* 2015 Feb;212(2):171.e1-8.
11. Vural F, Vural B, Cakiroglu Y. The Effect of Combined Antenatal and Postnatal Counselling on Postpartum Modern Contraceptive Use: Prospective Case-Control Study in Kocaeli, Turkey. *J Clin Diagn Res.* 2016 Apr;10(4):QC04-7.
12. Tafere TE, Afework MF, Yalew AW. Counseling on family planning during ANC service increases the likelihood of postpartum family planning use in Bahir Dar City Administration, Northwest Ethiopia: a prospective follow up study. *Contracept Reprod Med.* 2018;3:28.

13. Mruts KB, Tessema GA, Gebremedhin AT, Scott J, Pereira G. The effect of family planning counselling on postpartum modern contraceptive uptake in sub-Saharan Africa: a systematic review. *Public Health [Internet]*. 2022;206(2022):46–56. Available from: <https://doi.org/10.1016/j.puhe.2022.02.017>
14. Amran Y, Nasir NM, Dachlia D, Yelda F, Utomo B, Ariawan I, et al. Perceptions of contraception and patterns of switching contraceptive methods among family-planning acceptors in west nusa tenggara, indonesia. *J Prev Med Public Heal*. 2019;52(4):258–64.
15. Farrokh-Eslamlou H, Aghlmand S, Eslami M, Homer CSE. Impact of the World Health Organization's decision-making tool for family planning clients and providers on the quality of family planning services in Iran. *J Fam Plan Reprod Heal Care*. 2014;40(2):89–95.
16. Gamar I, Pratiwi D, Huzaimah N, Indriyani R. The Effectiveness Of The Use Of Decision-Making Tools And WHO Wheel Criteria In the Selection Of Contraception For Post Partum Mother. 2022;4(2):197–203.
17. Nurcahyani L, Widiyastuti D. Alat Bantu Pengambilan Keputusan (ABPK) Ber-KB Digital Sebagai Inovasi Media Konseling Keluarga Berencana. *J Ilm Bidan*. 2020;5(2):10–23.
18. Goueth RC, Maki KG, Babatunde A, Eden KB, Darney BG. Effects of technology-based contraceptive decision aids: a systematic review and meta-analysis. *Am J Obstet Gynecol [Internet]*. 2022;227(5):705-713.e9. Available from: <https://doi.org/10.1016/j.ajog.2022.06.050>
19. Nurcahyani L, Widiyastuti D, Hasan F, Cahyati Y, Badriah S. Development of Decision-Making Tool for Family Planning Application: Feasibility Test According to Material Experts. *Open Access Maced J Med Sci [Internet]*. 2022;10(E):720–724. Available from: <https://oamjms.eu/index.php/mjms/article/view/9315>
20. Nurcahyani L, Widiyastuti D, Iman AT, Cahyati Y, Fitriarningsih Y. Effects of Using an Application for Postpartum Contraceptive Use in Family Planning Counseling during Pregnancy. *Kesmas J Kesehat Masy Nas (National Public Heal Journal)*. 2023;18(2):137–44.
21. Sarfraz M, Hamid S, Kulane A, Jayasuriya R. 'The wife should do as her husband advises': Understanding factors influencing contraceptive use decision making among married Pakistani couples—Qualitative study. *PLoS One [Internet]*. 2023;18(2 February):1–19. Available from: <http://dx.doi.org/10.1371/journal.pone.0277173>
22. Sinai I, Omoluabi E, Jimoh A, Jurczynska K. Unmet need for family planning and barriers to contraceptive use in Kaduna, Nigeria: culture, myths and perceptions. *Cult Heal Sex [Internet]*. 2020;22(11):1253–68. Available from: <https://doi.org/10.1080/13691058.2019.1672894>
23. Samosir OB, Kiting AS, Aninditya F. Role of information and communication technology and women's empowerment in contraceptive discontinuation in Indonesia. *J Prev Med Public Heal*. 2020;53(2):117–25.
24. Becker S, Sarnak D. Experimental and Intervention Studies of Couples and Family Planning in Low- and Middle-Income Countries : A Systematic Review Introduction Men and Couples in Family Planning. 2022.
25. Habibi Z, Iskandar, Desreza N. Hubungan Dukungan Suami dengan Pemilihan Alat Kontrasepsi di Wilayah Kerja Puskesmas Kuta Alam Banda Aceh. *J Heal Technol Med*. 2022;8(2):1087–105.
26. Cavallaro FL, Benova L, Owolabi OO, Ali M. A systematic review of the effectiveness of counselling strategies for modern contraceptive methods: what works and what doesn't? *BMJ Sex Reprod Heal*. 2020;46(4):254–69.
27. Sznajder K, Carvajal DN, Sufrin C. Patient perceptions of immediate postpartum long-acting

---

reversible contraception: A qualitative study. *Contraception*. 2020;101(1):21–5.

28. Freeman-Spratt GJ, Botfield JR, Lee GS, Rajiv P, Black KI. Understanding women's views of and preferences for accessing postpartum contraception: a qualitative evidence synthesis. *BMJ Sex & Reprod Heal* [Internet]. 2023 Jan 12;bmjsrh-2022-201718. Available from: <http://jfprhc.bmj.com/content/early/2023/01/11/bmjsrh-2022-201718.abstract>
29. Rosalina L, Brata AH, Fanani L. Pembangunan aplikasi perangkat bergerak program KB berbasis android dengan menerapkan user centered design. *J Pengemb Teknol Inf dan Ilmu Komput* [Internet]. 2018;2(12):6915–21. Available from: <http://j-ptiik.ub.ac.id>
30. Akinola M, Hebert LE, Hill BJ, Quinn M, Holl JL, Whitaker AK, et al. Development of a mobile app on contraceptive options for young African American and Latina women. *Heal Educ Behav*. 2019;46(1):89–96.
31. Witkop CT, Torre DM, Maggio LA. Decide + Be Ready: A Contraceptive Decision-Making Mobile Application for Servicewomen. *Mil Med*. 2021;186(11–12):300–4.
32. Dehlendorf C, Fitzpatrick J, Steinauer J, Swiader L, Grumbach K, Hall C, et al. Development and field testing of a decision support tool to facilitate shared decision making in contraceptive counseling. *Patient Educ Couns*. 2017;100(7):1374–81.
33. Redman Jennifer; Wang, Dongwen MMTB. Evaluation of an Online Decision Aid for Selection of Contraceptive Methods. *Appl Clin Inf* [Internet]. 2022/12/28. 2022;1(AAM). Available from: <http://www.thieme-connect.com/products/ejournals/abstract/10.1055/a-2004-2304>
34. Dev R, Woods NF, Unger JA, Kinuthia J, Matemo D, Farid S, et al. Acceptability, feasibility and utility of a Mobile health family planning decision aid for postpartum women in Kenya. *Reprod Health*. 2019;16(1):1–11.
35. BKKBN, BPS, Kemenkes RI. *Survei Demografi Kesehatan Indonesia 2017*. 2018.
36. Wu WJ, Tiwari A, Choudhury N, Basnett I, Bhatt R, Citrin D, et al. Community-based postpartum contraceptive counselling in rural Nepal: a mixed-methods evaluation. *Sex Reprod Heal Matters* [Internet]. 2020;28(2). Available from: <https://doi.org/10.1080/26410397.2020.1765646>
37. Azis M. Pengembangan Aplikasi Mappacing Berbasis Android dalam Meningkatkan Pengetahuan Akseptor Hormonal [Internet]. Vol. 3. Universitas Hasanudin; 2020. Available from: <http://repositorio.unan.edu.ni/2986/1/5624.pdf>
38. Hebert LE, Hill BJ, Quinn M, Holl JL, Whitaker AK, Gilliam ML. Mobile contraceptive application use in a clinical setting in addition to standard contraceptive counseling: A randomized controlled trial. *Contraception*. 2018 Oct;98(4):281–7.
39. Sridhar A, Chen A, Forbes ER, Glik D. Mobile application for information on reversible contraception: a randomized controlled trial. *Am J Obstet Gynecol*. 2015;212(6):774–e1.
40. Kharbouch M, Idri A, Rachad T, Alami H, Redman L, Stelate Y. MyContraception: An Evidence Based Contraception mPHR for Better Contraception Fit. *Adv Intell Syst Comput*. 2020;1161:579–89.
41. Kharbouch M, Idri A, Rachad T, Alami H, Redman L, Stelate Y. Mobile Technology for Improved Contraceptive Care in Morocco. *J Med Syst*. 2021;45(2):2021.
42. Hamad F, Akour A, Fakhouri H, Al-Daghastani T, ... The Development of Mobile Application to Aid and Educate Healthcare Practitioners and Women to Select the Most Appropriate Method

- of Contraception. *Adv Res Stud J* [Internet]. 2020;11(December). Available from: [https://www.researchgate.net/profile/Tamara-Al-Daghastani/publication/347504301\\_The\\_Development\\_of\\_Mobile\\_Application\\_to\\_Aid\\_and\\_Educate\\_Healthcare\\_Practitioners\\_and\\_Women\\_to\\_Select\\_the\\_Most\\_Appropriate\\_Method\\_of\\_Contraception/links/5fe236bba6fdccdc8f3cf](https://www.researchgate.net/profile/Tamara-Al-Daghastani/publication/347504301_The_Development_of_Mobile_Application_to_Aid_and_Educate_Healthcare_Practitioners_and_Women_to_Select_the_Most_Appropriate_Method_of_Contraception/links/5fe236bba6fdccdc8f3cf)
43. Kementerian Kesehatan RI. *Pedoman Pelayanan Kontrasepsi dan Keluarga Berencana*. 2021.
44. Veri N, Lajuna L, Alchalidi, Dewita, Chipojola R. The use of long-acting reversible contraceptives: a quasi-experimental study in Indonesia. *24 Br J Midwifery*. 2023;31(1).
45. Yousef H, Al-Sheyab N, Al Nsour M, Khader Y, Al Kattan M, Bardus M, et al. Perceptions toward the use of digital technology for enhancing family planning services: Focus group discussion with beneficiaries and key informative interview with midwives. *J Med Internet Res*. 2021;23(7).