

Original Article

The Enhancing Women's Contraceptive Decision-Making: A Qualitative Study of IUD Adoption Among Women of Childbearing Age

Ahmad Yani^{1*}, Sudirman², Nur Afni³, Muhammad Syukran²

¹ Department of Health Promotion, Faculty of Public Health, Universitas Muhammadiyah Palu, Palu, Central Sulawesi, Indonesia

² Department of Health Policy Administration, Faculty of Public Health, Universitas Muhammadiyah Palu, Palu, Central Sulawesi, Indonesia

³ Department of Epidemiology, Faculty of Public Health, Universitas Muhammadiyah Palu, Palu, Central Sulawesi, Indonesia

(Correspondence author email, ahmadyani@unismuhpalu.ac.id)

ABSTRACT

Family Planning (KB) initiatives seek to manage population growth by curbing childbirths among women aged 15-49. This qualitative research investigates the decision-making process of women of childbearing age (WUS) when choosing intrauterine device (IUD) contraception in Batuoge Village, Pedongga District, Pasangkayu Regency. Employing observation, in-depth interviews, and documentation, the study reveals that WUS possess limited knowledge of IUD contraception, primarily at the basic level. Furthermore, their attitude toward IUD contraception tends to be less favorable. In terms of action, WUS generally engage in consultations with their partners. This research highlights the need for improved knowledge and attitudes regarding family planning (KB) with intrauterine device (IUD) contraception among women of childbearing age in Batuoge Village. It emphasizes their inclination toward consultation with their partners.

Keywords: Family Planning, Women of Childbearing Age, Intrauterine Devices

<https://doi.org/10.33860/jik.v17i3.3314>



© 2023 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).

INTRODUCTION

The decision factor for family planning acceptors to use the Long Term Contraceptive Method (MKJP) cannot be separated from the behavioral aspects of each individual ¹. If related to Lawrence Green's behavioral theory (2005), behavior is influenced by three factors. The first factor is the predisposing factor, which is a factor

that facilitates or predisposes a person's behavior to occur, which can be seen from age, education, knowledge, attitude, parity, and health history ². The second factor is enabling factors or enabling factors, namely factors that will allow or facilitate behavior or actions, and these factors include family planning services (room, equipment, and transportation). The third factor is a reinforcing factor that strengthens the behavior, in this case, the husband's support and the support of family planning service officers ³.

The attitude of family planning acceptors in choosing modern contraception is a first step in whether they believe in using long-term family planning. When he agrees or has a good attitude towards the use of birth control, he will tend to behave in using contraception ^{4,5}. Action is a mechanism for observation that arises from perception so that there is a concrete response in the form of an action that influences life⁶.

The World Health Organization (WHO) states that contraceptive use has increased worldwide, especially in Asia and Latin America, and is lowest in Sub-Saharan Africa. Globally, modern contraceptive use has increased insignificantly from 54% in 1990 to 57.4% in 2014 ⁷. Regionally, the proportion of couples aged 15-49 years reporting using modern contraceptive methods has increased for at least six years. In Africa, from 23.6% to 27.6%. In Asia, it has increased from 60.9% to 61.6%, while Latin America and the Caribbean have risen slightly from 66.7% to 67.0% ⁸. An estimated 225 million women in developing countries want to delay or stop fertility but do not use any contraceptive method for the following reasons: limited choice of contraceptive methods and experience of side effects. The unmet need for contraception remains too high. Inequality is driven by population growth ⁸.

The proportion of family planning use of the Long-Term Contraceptive Method (MKJP) in Indonesia in Basic Health Research (RISKESDAS) in 2013 (24%) and Riskesdas in 2018 (17.2%). In general, there was a decline over four years. In 2014-2018, MKJP achievement increased slightly (19.1%), but in 2015 the figure remained relatively constant, namely 23.5%. The use of MKJP in Indonesia is still far from the target ⁹.

Data from representatives of the National Family Planning Agency for West Sulawesi in 2022, the number of active family planning participants was recorded at 98,676, with details of injectable family planning acceptors recorded at 47,417 (48.1%), pill birth control acceptors recorded at 26,272 (26.26%), condom birth control acceptors at 1,464 (1.5 %), birth control implant acceptors were 16,767 (17.0%), IUD birth control acceptors were recorded at 3,029 (3.1%), vasectomies were recorded at 270 (0.3%), tubectomies were recorded at 2,597 (2.6%) and

male birth control acceptors were recorded 92 (0.1%) ¹⁰.

Data from the Population Control Service, Family Planning, Women's Empowerment and Child Protection, Pasangkayu Regency in 2022, the number of active family planning participants was recorded at 14,577, with details of injectable family planning acceptors recorded at 6,195 (42.50%), pill birth control acceptors recorded at 3,230 (22.16%), condom birth control acceptors. 170 (1.17%), birth control implant acceptors 3,609 (24.76%), IUD birth control acceptors recorded 33 (4.34%), vasectomies recorded 16 (0.01%), tubectomies recorded 597 (4.10%), and mal family planning acceptors were recorded at 17 (0.001%) ¹¹.

Reports from the Pedongga Community Health Center recorded the number of couples of childbearing age (PUS) at 1346, and the lowest IUD family planning participation in Batuoge Village was only one person out of 169 fertile women. There were 3 IUD acceptors in Malei Village, nine people in Padanda Village, seven in Martasari Village, seven in Martasari Kabuyu Village, and four in Martasari Mamuang Village¹².

The same source report in Batuoge Village of 169 Women of Childbearing Age (WUS), there were 50 people receiving birth control injections (46%), 29 people accepting birth control pills (26.6%), 28 people receiving birth control implants (25.7%), MOW KB acceptors were two people (2%), while one person was an IUD KB acceptor (1%).

Even though the level of accuracy of IUD contraception is quite effective in regulating birth spacing, the results of initial observations of 10 women of childbearing age (WUS) in Batuoge Village, four people said that IUD contraception has a considerable health risk for those who use it, three other people said that IUD contraception is menstrual. Irregular and three other people said they did not choose IUD contraception as a contraceptive because they lacked information about IUD contraception and preferred contraception that was familiar to them, for example, contraceptive injections and pills.

These data show that the problem of IUD family planning participation nationally is almost the same as the problem of family planning participation coverage in Batuoge Village,

namely the lack of long-term use of family planning as outlined in a study of the behavior of women of childbearing age (WUS) choosing intrauterine device (IUD) contraception in the village. Batuoge, Pedongga District, Pasangkayu Regency.

Therefore, this study aims to determine the behavior of women of childbearing age (WUS) in choosing intrauterine device (IUD) contraception in Batuoge Village, Pedongga District, Pasangkayu Regency.

METHOD

The research employs a qualitative descriptive approach to examine the behavior of women of childbearing age (WUS) in Batuoge Village when selecting intrauterine device (IUD) contraception. This study will be conducted through observations, in-depth interviews, and documentation. It is scheduled to take place in Batuoge Village, Pedongga District, Pasangkayu Regency, West Sulawesi Province, during March-April 2023. The methodology lacks detailed information on the study design, sample selection process, and data analysis methods, potentially introducing bias into the study.

RESULTS

This research relies on the involvement of various informants to conduct interviews and gather data. Multiple informants, including both primary and secondary informants, are essential for examining the behaviors of women of childbearing age (WUS) when selecting intrauterine device (IUD) contraception. In this research, two key informants (KP) and four supporting informants were engaged.

Table 1. Informant Information

Initials	Type of Informant	Age/ Years	Address	Work	Educa-tion
KP	Key	40	Village Pedongga	PNS	Bachelor
BD	Key	38	Pedongga	PNS	D3
NV	Addition	25	Village Batuoge	PNS	Senior High School
NS	Addition	32	Village Batuoge	IRT	Junior High School

TA	Addition	22	Village Batuoge	IRT	Senior High School
AL	Addition	27	Village Batuoge	IR T	Junior High School

Knowledge and Awareness of IUD Contraception

The research reveals a limited understanding of IUD contraception among women of childbearing age in Batuoge Village, Pedongga District, Pasangkayu Regency. The interviews with key informants (KP) and additional informants (AL, TA, NV, NS) highlighted the following findings:

"There appears to be a lack of knowledge about contraception, and the efficacy of IUDs is not well comprehended."

"Many women of childbearing age are unaware of the high effectiveness of IUD contraception and tend to rely on more familiar contraceptive methods like injections and pills. The majority lack a clear understanding of IUDs."

Attitudes Toward IUD Contraception

The research findings suggest that attitudes toward IUD contraception among women of childbearing age in Batuoge Village are generally less receptive. Key informants (KP and BD) noted:

"The response of fertile women to IUDs appears to be limited. While there has been an increase in participation, it remains modest."

"At times, the response is unfavorable. Some women decline invitations to use IUDs, expressing concerns about the absence of hormonal elements. Additionally, women using other forms of birth control with infrequent periods might hesitate."

Supporting informants shared similar perspectives:

"IUD contraception is convenient and highly effective for long-term pregnancy prevention."

"Initially, I had only heard about IUD contraception, but I eventually considered switching to it after a thorough explanation"

from my mother. The surgical aspect of IUD insertion initially made me apprehensive."

- "Following discussions with my mother, I now believe that IUD contraception is an excellent choice. I plan to think it over and consult with my partner."

Actions Taken to Promote IUD Contraception

The research highlights specific actions undertaken to promote IUD contraception among women of childbearing age in Batuoge Village, Pedongga District, Pasangkayu Regency. Key informants (KP and BD) discussed these actions:

"Our approach involves regular education about IUDs for WUS, in collaboration with family planning instructors to introduce IUD family planning to the community."

"Efforts to increase the adoption of IUDs include engaging counselors."

Supporting informants reiterated:

"IUD contraception is highly effective, requiring minimal ongoing control."

"My awareness of IUD contraception was limited initially, but I have reconsidered it after my mother explained it to me. The surgical aspect of IUD insertion initially made me somewhat apprehensive."

"Upon understanding the details from my mother, I now believe it is an excellent option and plan to discuss it with my partner."

DISCUSSION

Knowledge of Women of Childbearing Age (WUS) choosing Intra Uterine Device (IUD) contraception in Batuoge Village

Based on the results of research through interviews with informants regarding the knowledge of women of childbearing age (WUS) in choosing intrauterine device (IUD) contraception in Batuoge Village, it shows that, in principle, the people in the area only know from their closest family about IUDs.

Those who understand IUDs are women of childbearing age (WUS) who have used IUD contraception. At the level of society in general, it has not reached the stage of understanding. This

happens because the community or WUS in Batu Oge Village rarely receives counseling about IUD contraception. The increase in knowledge obtained by participants reflects those participants can accept the information received through health education.

A person's knowledge about something influences that person's decision-making regarding related matters^{13,14}. This has been proven in family planning acceptors whose lack of knowledge will influence family planning acceptors in choosing IUD birth control. Knowledge factors greatly influence mothers' interest in using IUD contraception. Mothers' knowledge about IUD contraception is minimal, so only a few mothers choose to use it because they do not know the success of using it. Learning about family planning should be directed at PUS understanding about healthy ages for pregnancy and childbirth, how to regulate the number of children, and spacing of pregnancies so there are no risks and achieve a happy family.

To choose and use hormonal and non-hormonal contraceptive methods. By providing accurate and appropriate information and empathetic counseling, individuals and couples can consciously choose a contraceptive method. To use the form correctly and safely, women of childbearing age must know the possible side effects and complications.

The source of information influences the level of knowledge of women of childbearing age^{15,16}. Information can be reported through outreach or leaflets, such as leaflets or communication media. With input from health workers, the level of knowledge of women of childbearing age is increasing, especially about contraception.

The level of knowledge of women of childbearing age about contraceptive methods obtained from providing accurate and unusual information influences the decision of women of childbearing age to choose IUD contraception as their contraceptive method.

The Family Planning (KB) program is essential in supporting the acceleration of achieving community welfare^{17,18}. Therefore, cooperation between the government and the community is necessary to implement this program. The initial aim of the family planning program is to form a small family based on the

socio-economic strength of a family by regulating the birth of children to obtain a happy and prosperous family that can fulfill its life needs. The role of men/husbands in family planning participation is their responsibility and healthy and safe sexual behavior for themselves, their partners and their families. For the success of the family planning program, the participation of the wife and husband as couples of childbearing age (PUS) is essential. Family planning is not only for women/wives but also for men/husbands. The information source influences the knowledge level of women of childbearing age. Data can be provided through counseling, leaflets, or communication media about IUD contraception. With information from health workers, the level of knowledge of women of childbearing age about IUDs is also increasing. WUS are expected to be able to take part in family planning programs that are proven to be effective for family planning and good for reproductive health. Participation in the right family planning program for WUS will result in optimal reproductive health and the choice of IUD contraception.

Eisenberg et al. 2012 stated that knowledge is related to contraceptive choice¹⁹. To realize the rational use of contraception by family planning acceptors, it is necessary to increase the acceptor's knowledge and understanding of contraceptive methods through improved quantity and quality outreach. In this way, the acceptor knows the ins and outs of contraceptives properly and correctly. In line with this research, Gosavi et al. 2012 stated that those with high knowledge prefer the IUD family planning method²⁰.

Attitudes of Women of Childbearing Age (WUS) in choosing Intra Uterine Device (IUD) contraception as a contraceptive tool in Batuoge Village

Based on the research results through interviews with informants regarding the attitudes of women of childbearing age (WUS) in choosing intrauterine device (IUD) contraception in Batuoge Village, it shows that people in the area are less responsive to IUD contraception.

Attitude is a person's tendency to act, think, perceive, and feel an object, idea, situation, or value. This attitude determines whether someone agrees or disagrees with a thing.

Attitudes are relatively permanent. Attitudes arise from experience, have motivational and emotional aspects, and can be learned and contain a particular relationship to an object. A person's attitude is generally consistent, and people act according to their attitude. Meanwhile, the opinion of several acceptors about the IUD is that it aims to limit births, and every woman can use it.

The decision factor for family planning acceptors to use MKJP cannot be separated from the behavioral aspects of each individual. If related to Lawrence Green's behavioral theory (2005), behavior is influenced by three factors. The first factor is the predisposing factor, which is a factor that facilitates or predisposes a person's behavior to occur, which can be seen from age, education, knowledge, attitude, parity, and health history. The second factor is enabling factors or enabling factors, namely factors that will allow or facilitate behavior or actions, and these factors include family planning services (room, equipment, and transportation). The third factor is reinforcing factors that strengthen behavior, in this case, the husband's support and the support of family planning service officers².

The IUD contraceptive device is a solid object that, if installed in the uterine cavity, can cause changes in the uterine endometrium, disrupting ovum implantation. IUDs containing copper (Cu) also inhibit the efficacy of anhydrase, carbon, and alkaline phosphatase, block the union of sperm and ovum, reduce the number of sperm reaching the fallopian tubes, and inactivate sperm. The IUD is effective because it only requires one installation and can be left in for years. It is safe because it can prevent pregnancy for a long time.

The low use of IUD contraceptives is caused by the many negative rumors about contraceptives, which influence the attitudes of potential acceptors in choosing contraceptives. Negative attitudes are caused by negative stories, including the opinion that the IUD is not reversible. It is feared that using an IUD will not result in getting pregnant again. It is also perceived that the IUD can cause pain during intercourse, which can lead to household disharmony. Another finding in this study that influences WUS's attitude towards using IUDs is that mothers of fertile women think that IUDs are installed through surgery, but in reality, the IUDs

are installed in the cervix and do not need surgery. The method for installing them is during menstruation because, at that time, the cervix is wide open.

This aligns with research by Rani Pratama Putri (2019), which states that a good mother's attitude has a greater possibility of using IUD contraception. This is to the theory, which states that attitudes can influence a person's behavior in choosing a contraceptive device, including the IUD²¹.

Information conveyed by word of mouth is one of the factors that women consider when using IUD contraception. Suppose information about the adverse effects and myths about IUDs circulates more frequently in society and is not comparable to education about the benefits of IUD contraception. In that case, this will make people increasingly distant and regard IUDs as inferior contraception.

A person's attitude is an essential component in their health behavior, and it is assumed that there is a direct relationship between a person's attitude and behavior²². Attitude is a reaction or response that is still closed from a person to a stimulus or object²³. Other limitations include a person's attitude towards an object, whether a feeling of support or partiality (favorable) or a sense of not supporting or not taking sides (unfavorable) towards the thing. Attitude is a certain regularity in a person's feelings (affection), thinking (cognition), and predisposition to action (conation) towards an aspect of the surrounding environment²⁴. From the limitations above, attitude is an assessment of the surrounding situation, shown by feelings. Attitude has three main components: 1. Belief (belief), ideas, and concepts towards an object. 2. Emotional life or emotional evaluation of an object. 3. The tendency to act (trend to behave).

In line with research by Rubin et al. 2011, it was stated that the average respondent's IUD family planning method was positive because the respondents' knowledge about IUD family planning was also good²⁵.

Actions of Women of Childbearing Age (WUS) choosing Intra Uterine Device (IUD) contraception as a means of contraception in Batuoqe Village

The research results show that the actions of women of middle age in choosing IUD contraception as a contraceptive method are only limited to hearing. Switching from pill contraception to IUD is quite tricky. The perception so far is that IUD installation is an operation.

One of the causes of the low use of IUD contraception is due to several factors, including the perception of IUDs in society. Perception is a person's experience of an event object obtained by deducing information and interpreting a message.

Apart from that, knowledge is a critical domain for the formation of one's actions²⁶. Knowledge itself is the result of education, where the knowledge is obtained. However, it needs to be emphasized that it is not because someone with low education means they have common knowledge. This is because increasing knowledge is not obtained from formal education alone but can be obtained through non-formal education. Knowledge in the form of information that acceptors obtain regarding various types of contraceptives, whether the information is obtained from health workers or lay people, will influence whether they become family planning acceptors.

Low coverage of the use of contraceptives will affect the quality of life of families and will hinder improving the level of public health, especially maternal and child health²⁷. Seeing this situation, there may be an increase in cases of unwanted pregnancies due to the higher number of non-MKJP family planning participants, where, as is known, the failure rate for MKJP is 0-2 per 1000, which is smaller than for non-MKJP, namely 10 per 1000 failure rates.

From the research that various researchers have carried out, knowledge and attitudes significantly influence a person's actions. Inside is very tied and consistent to a situation that can affect a person's behavior and actions because understanding can clarify a decision or think in the category of safe (positive) or bad (negative).

Knowledge factors greatly influence the formation of attitudes. The existence of knowledge will affect a person's perception so that people have an attitude, and this can then be seen in their actions²². The role of knowledge in family planning is directed at EFA's

understanding of the healthy age for pregnancy and childbirth, the spacing of pregnancies that are too risky, and the ideal number of children to achieve a happy and prosperous family.

Installing an IUD requires cooperation with the husband for reasons of fear that the thread will interfere during intercourse. The husband's support is vital for decision-making regarding family planning because if the husband does not allow or support, only a few mothers dare to continue installing the contraceptive device. The husband's support is critical to motivate and support the wife in choosing which contraceptive method to use. The lack of support from the husband often means that the wife has no right to decide when making decisions. Support that can be provided includes choosing suitable contraception that suits his wife's condition, reminding her to control and delivering it when there are side effects or complications. So, WUS minimal knowledge will influence WUS participation in selecting IUD contraceptives.

CONCLUSION

This research concludes that WUS' knowledge about IUD contraception is minimal, only at the level of expertise. The attitude of WUS towards IUD contraception is less responsive to IUD contraception. WUS's actions regarding the IUD are at the level of consultation with their partner. Government agencies in Batu OGe Village will likely collaborate more with health agencies, especially regarding family planning information. It is hoped that the puskesmas will provide outreach and education to WUS about IUD contraception.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest related to this research project. We have conducted this study with full transparency and without any external influences that could compromise the objectivity or integrity of the research. This includes financial, personal, or professional relationships that might be perceived as conflicts of interest. Our commitment to impartiality and the pursuit of knowledge remains unwavering.

REFERENCES

1. Mariati N, Raja SL, Hanum R. Influential Factors of Fertile Age Couples (PUS) in the Selection of Long-Term Contraception Methods (MKJP) in the Work Area of the Medan Community Health Center. *J La Medihealthico*. 2021;2(1):1–12.
2. Baker Jr EL, Potter MA, Jones DL, Mercer SL, Cioffi JP, Green LW, et al. The public health infrastructure and our nation's health. *Annu Rev Public Heal*. 2005;26:303–18.
3. Notoatmodjo S. *Pendidikan Kesehatan Ilmu dan Perilaku*. Jakarta: Rineka Cipta; 2017.
4. Ermawati BLE, Driza NA. Relationship Education, Knowledge and Attitude to the Use of Mow Contraception Method on Family Planning Acceptor in the Work Area of Lubuk Buaya Community Health Center of Koto Tengah Sub-District Padang Year 2017. In: 1st Annual Conference of Midwifery. 2020. p. 167–73.
5. Pakaya GR, Katili DNO, Umar S. The Effect of Counseling using decision-making tools for family planning on interest in using the IUD. *J Community Heal Provis*. 2021;1(1):31–7.
6. Sulistyorini S. Analisis Faktor-faktor yang Mempengaruhi Pemakaian ALat Kontrasepsi Hormonal KB Suntik 3 Bulan di BPM Dewi Anggraini Palembang Tahun 2017. *Masker Med*. 2018;6(1):245–53.
7. Arini. Hubungan Pendidikan, Pengetahuan, Usia dan Dukungan Suami Dengan Pemilihan Kontrasepsi IUD di Puskesmas Pulokarta Kabupaten Purwokerto. Skripsi. Universitas Muhammadiyah Purwokerto; 2016.
8. Nathalia. Strategi Bidang Advokasi dan KIE Badan Pemberdayaan Perempuan Keluarga Berencana Dalam Menyoliasisasikan Program Kampung KB di Panggung Rejo Pasuroan. *J E Komun*. 2018;5(1):97–105.
9. Awwaliah AR, Salmah AU, Ikhsan M. Determinan Penggunaan Kb Metode

- Kontrasepsi Jangka Panjang Di Wilayah Kerja Puskesmas Lawawoi Kabupaten Sidenreng Rappang: Determinants of the Use of Long-Term Contraceptive Methods in the Work Area of the Lawwoi Health Center, Sidenreng Rappang District. *Hasanuddin J Public Heal.* 2021;2(2):210–9.
10. BKKBN Sulawesi Barat. Laporan Keluarga Berencana Provinsi Sulawesi Barat. Mamuju: BKKBN; 2022.
 11. Dinas P2KBP3A. Laporan Kepesertaan KB Aktif Kabupaten Pasangkayu. Pasangkayu: Dinas P2KBP3A; 2022.
 12. Puskesmas Pedongga. Laporan Akseptor KB Puskesmas Pedongga Tahun 2022. Mamuju: Puskesmas Pedongga; 2022.
 13. Blumenthal-Barby JS. Biases and heuristics in decision making and their impact on autonomy. *Am J Bioeth.* 2016;16(5):5–15.
 14. Loewenstein G, Lerner JS. The role of affect in decision making. *Handb Affect Sci.* 2003;619(642):3.
 15. Camacho-Morell F, Esparcia J. Influence and use of information sources about childbearing among Spanish pregnant women. *Women and Birth.* 2020;33(4):367–76.
 16. Hammarberg K, Setter T, Norman RJ, Holden CA, Michelmore J, Johnson L. Knowledge about factors that influence fertility among Australians of reproductive age: a population-based survey. *Fertil Steril.* 2013;99(2):502–7.
 17. Resnawaty R, Humaedi S, Adiansah W. Evaluasi program kampung keluarga berencana dalam meningkatkan ketahanan dan kesejahteraan keluarga. *J Kolaborasi Resolusi Konflik.* 2021;3(1):93–104.
 18. Setia E. Implementasi Program Kampung Keluarga Berencana (KB) Dalam Meningkatkan Kesejahteraan Masyarakat (Studi Kasus di Kelurahan Kenali Besar Kecamatan Alam Barajo Kota Jambi). universitas jambi; 2021.
 19. Eisenberg DL, Secura GM, Madden TE, Allsworth JE, Zhao Q, Peipert JF. Knowledge of contraceptive effectiveness. *Am J Obstet Gynecol.* 2012;206(6):479-e1.
 20. Gosavi A, Ma Y, Wong H, Singh K. Knowledge and factors determining choice of contraception among Singaporean women. *Singapore Med J.* 2016;57(11):610.
 21. Putri RP, Sari RDP, Ayu PR. Perbandingan Faktor-Faktor yang Mempengaruhi Penggunaan Kontrasepsi Intra Uterine Devices (IUD) dan Kontrasepsi Implant pada Wanita Usia Subur di Kecamatan Sukarame Kota Bandarlampung. *J Major.* 2019;8(2):120–4.
 22. Ajzen I, Fishbein M, Lohmann S, Albarracín D. The influence of attitudes on behavior. *Handb attitudes, Vol 1 Basic Princ.* 2018;197–255.
 23. Krosnick JA, Judd CM, Wittenbrink B. The measurement of attitudes. In: *The handbook of attitudes, Volume 1: Basic principles.* Routledge; 2018. p. 45–105.
 24. Goodall CE. An overview of implicit measures of attitudes: Methods, mechanisms, strengths, and limitations. *Commun Methods Meas.* 2011;5(3):203–22.
 25. Rubin SE, Fletcher J, Stein T, Segall-Gutierrez P, Gold M. Determinants of intrauterine contraception provision among US family physicians: a national survey of knowledge, attitudes and practice. *Contraception.* 2011;83(5):472–8.
 26. Björk J. Knowledge domain spanners in ideation. *Creat Innov Manag.* 2012;21(1):17–27.
 27. Chola L, McGee S, Tugendhaft A, Buchmann E, Hofman K. Scaling up family planning to reduce maternal and child mortality: the potential costs and benefits of modern contraceptive use in South Africa. *PLoS One.* 2015;10(6):e0130077.