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Contraceptives Use Among Reproductive-Age Women in New Juaben Municipality, Ghana

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1. Introduction

Contraceptive services have been identified as an important tool for the reduction of maternal deaths, which calls for the implementation of strategies to improve the use of contraceptives. The use of modern contraceptives enables individuals and couples to plan their families, including the number of children they desire to have, and how to appropriately space and time their births [1]. Ghana is a developing country that promotes the use of contraceptives to aid individuals in avoiding unwanted pregnancies, thereby improving the health of women and children and controlling population explosion [2,3]. Studies have shown that women have challenges accessing modern contraception, or do not use it for a range of reasons including health concerns, social disapproval, and partner opposition [2,4-6]. Reproductive-age women constitute the main population with concerns about modern contraceptive usage in the Municipality. The annual report from the Reproductive and Child Health Unit of the eastern region shows a persistent decrease in the contraceptive acceptor rate, coupled with maternal deaths which are linked to unsafe abortion practices, and therefore limits the study to only women [7].

The decrease in the contraceptive prevalence in the New Juaben Municipality is likely to continue due to the downward trend in the acceptance rate. Reproductive-age women in New Juaben Municipality form the population most affected by modern contraceptive usage [7]. The health of reproductive-age women in New Juaben Municipality is of great concern as no study has been done in the eastern part of Ghana regarding the perception, threats, barriers, or challenges these women face in utilizing modern contraceptive services [8,9]. Research studies into modern contraceptive usage need to extend to other parts of the region to help address critical issues faced by users. Studies done in other parts of the country have limited information

on the challenges reproductive-age women face in utilizing modern contraceptive services.

Research in the southern and northern parts of Ghana has shown few barriers and misconceptions to contraceptive use among married women [10-12]. A descriptive qualitative study was undertaken, using such strategies as indepth interviews and focus group discussions, to seek the views of married community members on the nature and form of misconceptions they have about modern contraceptive use [10-13]. The results of the study showed some misconceptions about the use of contraceptives including infertility, uterine fibroids, and cancer of the breast and cervix [10-13]. To effectively evaluate the contraceptive acceptance rate problem, it is important to understand the related challenges to improve the use of modern contraceptives in the New Juaben Municipality.

A few studies have been reviewed outside Ghana, which indicates that the use of contraceptives to promote reproductive health is faced with challenges. A qualitative study by Ochako and Hindin, determined the barriers to the use of contraceptives among young women in Kenya [14,15]. The study revealed that the main barriers to the use of contraceptives among young women are myths and misperceptions that a particular method would render them infertile [14,15]. Although the study was limited to barriers and drivers to the use of contraception, the study approach will help explore the perception, benefits, and challenges faced by reproductive-age women (20-39 years) concerning the use of modern contraceptives [16-18]. It is imperative to research the perceived susceptibility to unplanned pregnancy, threats or severity in the non-use of modern contraceptives, benefits in the use of modern contraceptives, perceived self-efficacy, and cues to action in the use of modern contraceptives. The barriers or challenges faced by women in the New Juaben Municipality

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of the eastern region of Ghana on the use of modern contraceptives will also be investigated, to help reduce existing disparities in the use of modern contraceptives, such as condoms, hormonal, intrauterine devices, and others, and improve usage.

Unintended pregnancies and their related consequences such as unsafe abortion result from the non-use of contraceptives. The unmet need for contraception among married women aged 15-49 years in Ghana was estimated at 26.3%, while the contraceptive prevalence rate was 30.8% in 2017 [19]. There is a decline in the use of modern contraceptives among reproductive-age women (20-39 years) in the eastern region between 2014 and 2016 (GSS 2017), and the New Juaben Municipality of the Eastern Region of Ghana records a drop in contraceptive prevalence rate despite the availability of contraceptive services in the health facilities (RCHU 2019), which puts the health of the women and children at great risk [20,21].

The consequences of the non-use of contraceptives include an increased maternal mortality rate [22]. This has been identified as a major issue in the New Juaben Municipality where women often die from the consequences of unplanned pregnancies and specifically unsafe abortions. The problem to be addressed by this study is that reproductive-age women (20-39 years) living in the Municipality are not using modern contraceptives despite their availability in the health facilities. There is limited evidence on perception, threats, benefits, barriers, or challenges in the use of modern contraceptive methods in the New Juaben Municipality. The purpose of this research study was to explore the perception, threats/severity to unplanned pregnancy, perceived benefits, barriers or challenges, self-efficacy, and cues to action in utilizing modern contraceptive methods to prevent maternal and neonatal deaths among reproductiveage women (20-39 years) in the New Juaben Municipality of the Eastern Region of Ghana. In doing a qualitative study a constructive paradigm could bring a deep understanding of the health behavior of women towards the use of modern contraceptives.

2. Methods

2.1. Study Design

A basic qualitative research design was used to explore the overall perceptions and experiences in the use of modern contraceptives among reproductive-age women (20-39 years) in the New Juaben Municipality. A basic qualitative approach was appropriate for this study because it allowed study participants to interpret their experiences and express their concerns or challenges regarding the use of modern contraceptives [23,24]. It also helped to fill the gap in the literature on knowledge of the perceptions and challenges to the use of modern contraceptives among reproductive-age women in the Municipality. A purposive sampling approach was used to recruit study participants. The research method included the use of in-depth, phone interviews with reproductive-age women (20-39 years) in the New Juaben Municipality. The interviews were guided by open-ended questions which allowed participants to

share their views. A digital recording device was used to record the interview, which was later transcribed. Data were interpreted and organized per the themes that emerged.

2.2. Study Location

The population in this study consisted of women in the reproductive age group (20-39 years) who were residents of the New Juaben Municipality of the Eastern Region of Ghana. These categories of women were purposely selected because the study was centered around sexually active women, who were mature enough to share their knowledge and experiences on modern contraceptives [25]. Women having the experiences needed to provide relevant information to address the phenomenon under study and adequately answer the research questions were considered in the target population. This was ensured by including participants who had used a modern contraceptive method before. The initial contact was made with the unit in-charges who assisted in identifying women in the age category of 20 to 39 years. Potential participants were screened based on their socio-demographic data and participants who met the inclusion criteria were then chosen. An average of 5 participants were recruited daily, but individuals who had the knowledge or were ready to share experiences on the subject were considered. Consent for participation was obtained from all participants after explaining to them the purpose, significance, and process of the study. Contact numbers were exchanged, and participants were booked for the appropriate time for the phone interviews.

2.3. Sampling and Data Collection Procedures

The research participants for this study were women in their reproductive age group (20-39 years) who lived in the New Juaben Municipality of the Eastern Region of Ghana. Participants were identified by the researcher based on the inclusion criteria and with the help of health workers who rendered reproductive health services at the antenatal and postnatal clinics of the Eastern Regional Hospital in the Municipality. Eligible participants were contacted by the researcher and recruitment was done after they had gone through screening. Potential participants were easily identified at the health facility and they were approached individually for selection based on their eligibility and readiness to take part in the study.

A purposive sampling technique was used to select the participants while considering the principle of saturation [26]. The number of participants for the study was selected based on the type of study (basic qualitative study), the data collection method (in-depth interview), and the phenomenon under study (modern contraceptive utilization), and data collection continued till saturation was achieved. The unit in charge was first informed about the intended research study, so they assisted in selecting potential study participants based on the age category. The contact numbers of potential study participants were taken after consenting and then saved after the purpose of the study had been explained to them. It was then followed up with a call and arrangements were made for a suitable date

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and time for the phone interviews.

2.4. Data Analysis

Data analysis was based on the inductive approach using a predetermined theory or framework while focusing on the actual data to derive the structure of the analysis [27]. For this research study, thematic content analysis was adopted following the data transcription, whereby themes and categories were identified based on the research questions, the constructs of the HBM, and the content of the data. The HMB constructs encompassed the perceptions of participants about their susceptibility to unwanted pregnancy, threats to non-use of modern contraceptives, barriers to the use of modern contraceptives, self-efficacy to the use of modern contraceptives, and cues to action on the use of modern contraceptives.

2.5. Trustworthiness of the Study

For this research study, credibility was established based on the fact that adequate time and energy were invested in the data collection process. Proper techniques were also adopted for the interview process, and data was appropriately transcribed. The right coding techniques were applied and the data collection techniques used for the study were expected to promote sound, reliable, and valid research findings. The findings from the other sources were applied to the findings from the interview. To achieve dependability, it was ensured that the research process was reasonable, traceable, and documented [28]. The research findings could also be described as dependable, as they reflected the responses from study participants [29]. Confirmability signifies the degree of neutrality of the research findings following a qualitative study [30]. For this research study, it was ensured that the findings from the study were based on the responses from participants and that no external or personal motivations influenced the study.

2.6. Ethical Considerations

Ethical clearance was sought from the Institutional Review Board (IRB 06-17-20-063450), and the Ghana Health Service Ethics Review Committee. The research participants were adequately informed about the research procedure, purpose of the research, expected duration, possible risks, as well as potential benefits. The research participants were made to fully understand the project as a public health initiative to promote reproductive health in the Municipality so that they could give their informed consent. Research participants were assured of confidentiality through the process of coding by de-identifying them. They were informed that the interview would be recorded for research purposes only, and the tape recordings would be listened to only by the researchers. Informed consent was obtained from research participants before recording their voices for data collection.

3. Results

3.1. Participants' Background

A total of 15 women aged between 20 to 39 years were recruited to participate in this research study. Participants for this interview were mostly in their thirties; the highest age was 39 years and the lowest age was 23 years. A little over half of the participants were married. All participants have had a formal education with the majority of them attaining a tertiary status and also working. Almost all the women interviewed identified themselves as Christians, except for one Muslim. Except for five participants, the rest had between one child to three children. The six constructs of the health belief model were used to analyze the collected data. This consisted of perceived susceptibility, perceived severity, perceived benefits, perceived barriers, perceived self-efficacy, and cues to action. A detailed transcription of each participant's responses was listened to. It was ensured that the transcribed data were read multiple times to get a good understanding.

3.2. Themes and Codes

Themes	Codes
Knowledge/ experience on modern contraceptives	Oral pills, condoms, IUD, emergency contraceptives, implants, injectables, vasectomy, emergency ligation Source of information from the media, health facility, professional knowledge, friends, family members
Unintended pregnancy	Rape, unplanned pregnancy, pregnancy at the wrong time, Unprotected sex, unmet for family planning, abortion, Economic hardship, school dropout, delay vision, no life progress, lack of concentration, life threat, death
Reasons for non-use of contraceptives	Side effects, difficulty in assessing right method, risk of STIs, Negative impact on sexual life, anxiety, religious factor
Benefits of modern contraceptives	Prevent unwanted pregnancies, prevent STIs, birth spacing Reduce maternal mortality, control population explosion Ability to take good care of family, easily accessible Reduce the rate of teenage pregnancy, reduce unsafe abortion, reduce STDs, Reduce maternal morbidity and mortality, birth spacing Adequate time to take care of family, saves money, Allows for career progression, empowers women

Challenges of using modern
contraceptives

Changes in menstrual cycle, heavy bleeding, irregular menses,
Anaemia, high blood pressure, blood clotting, breast tenderness
Ovarian cancer, weight gain, heart attack, cervical cancer, low sex drive

3.3. Knowledge/Experience in the Use of Modern Contraceptives

Participants mentioned their knowledge of modern contraceptives including hormonal (oral pills, injectables, implants), condoms, and intrauterine devices (IUD). Some of the participants also mentioned emergency contraceptives (Postinor 2, Lydia, Lenor, and Levon), male sterilization (vasectomy), and bilateral tubal ligation (BTL), as other methods of preventing pregnancy. The participants expressed various concerns about the modern contraceptive methods and their sources of information which include the media, education at the health facility, professional knowledge, friends, and family members. Participants were of the view that the use of modern contraceptives could help prevent unwanted pregnancies, and sexually transmitted infections (STIs) and also help in birth spacing. Some of the participants also attributed the use of modern contraceptives to a reduction in maternal mortality cases among women and control of population explosion.

Another view expressed was that, modern contraceptives (hormonal, condoms, IUD) are very effective when used correctly and consistently. It also gives women the opportunity to save and take good care of their families. Participants also held the view that modern contraceptives are safe to use, easily accessible, and can be purchased at healthcare centres/ pharmacies. Participant 2 commented, "It is a necessary evil because at one point in time, it is needed to prevent unwanted pregnancy and at another time its side effects can result in health issues." However, some participants raised concerns about the side effects and health-related issues associated with the use of modern contraceptives. Participant 8 indicated that the side effects could affect her decision not to use modern contraceptives when she said, "I am looking at its effect on the female hormones..." Participant 2 also made this statement, "The side effects are a big concern to me." Others were of the opinion that it is not hundred percent reliable. Participant 4 expressed her view by stating, "It is not a hundred percent safe because it can still lead to pregnancy."

3.4. Reasons for Non-Use of Contraceptives

Participants were of the view that the "side effects" associated with modern contraceptives will be a major factor in deciding not to use them. Some of the participants also expressed the view that difficulty in assessing the right method and an unmet need for family planning can cause them to decide not to use modern contraceptives. Also, poverty and socio-cultural beliefs were stated by some of the participants as one of the reasons that would influence their decision not to use modern contraceptives. The desire to have babies was another reason not to use modern contraceptives. Participants believed that deciding not to use modern contraceptives could result in unwanted

pregnancy. Some were of the view that deciding not to use modern contraceptives can affect one's reproductive health, have an impact on their sexual life, and increase the risk of contracting sexually transmitted infections (STIs). Also, anxiety coupled with psychological trauma after sex and fear of getting pregnant were mentioned. However other participants believed that nothing will happen if one decides not to use modern contraceptives.

A question was asked to elicit information on the consequences of not using a modern contraceptive to delay pregnancy or avoid unintended pregnancy. Participant 7 said, "In the case where I am not ready for a baby but have unsafe sex, then if I doesn't use contraceptives I will get pregnant which will lead to unwanted pregnancy." Participant 12 response was, "There will be a possibility of an unwanted pregnancy." Participant 9 said, "If you don't use modern contraceptives, it can affect one's reproductive health and have impact on your sexual life." Participant 15 also described modern contraceptives as "A necessary evil."

Participants expressed concerns about the negative effects of unintended pregnancy on the health of mothers and children, as well as the social and psychological impact on the family. Participant 5 commented, "An unwanted pregnancy can put the woman at great risk because it can end up in an illegal abortion." Participant 6 also stated, "l thinks an unwanted pregnancy is a threat to a woman's life because it brings economic hardship to the woman as well as psychological stress." Participant 12 shared her view on how unintentional pregnancy can affect a person's life, "unintended pregnancy can be a threat to a woman's life because it can delay her vision in life." Similarly, Participant 2 also stated, "It can be when the individual decides to terminate it in the wrong way." Participant 8 added, "Yes, unwanted pregnancy can lead to death due to illegal abortion or termination of the pregnancy." Participant 9 also mentioned that, "Yes, you will think of aborting the pregnancy, and that may come with bleeding and possible loss of the womb."

Participants thought that deciding not to use modern contraceptives could result in unwanted pregnancy. Participant 7 made this comment, "In the case where I am not ready for a baby but have unsafe sex, then if I doesn't use contraceptives I will get pregnant which will lead to unwanted pregnancy." Participant 9 shared her view that deciding not to use modern contraceptives can affect one's reproductive health, have an impact on their sexual life, and increase the risk of contracting sexually transmitted infections (STIs), when she made this statement, "If you don't use modern contraceptives, it can affect one's reproductive health and have impact on your sexual life." Participant 2 stated, "I don't have the soundness of mind during and after sex because I feels there is a possibility of me getting

pregnant." Participant 13 also stated, "If you don't use modern contraceptives, you are likely to contract STIs and also unwanted pregnancies." Again, anxiety coupled with psychological trauma after sex and fear of getting pregnant was also mentioned. However, few participants thought that nothing would happen if one decided not to use modern contraceptives.

3.5. Threats/Barriers/ Challenges

Participants expressed their opinions about the negative experiences they have had or heard about the use of modern contraceptives. Participant 3 said, "it has side effects if used continuously it causes changes in menstruation, it can cause loss of menstruation or extra bleeding." Participant 4 commented, "It is not hundred percent safe because it can still lead to pregnancy. It can affect your health because it can lead to blood clotting and this can cause heart attack." Similarly, Participant 15 shared the experiences she had in the use of modern contraceptives and she stated, "There are so many side effects associated with the use modern contraceptives, like piercing pain in the chest around the area of the heart, per my experience, even the menstrual cycle is also altered." Participant 12 said, "Some of the methods have serious side effects, such as vaginal irritation and breast tenderness. I also think that the fear of side effects can be some of the barriers".

The individual's religious belief was also identified as a barrier to the use of modern contraceptives. For instance, Participant 6 shared her view by stating, "Because of the religious beliefs of some denominations or Christian groups, it becomes difficult for some women to use the contraceptive methods." Participant 5 also commented on the barrier's women face in using modern contraceptives and she stated, "Yes, the religious background of women, example being a catholic ... spouse not in agreement with the use of contraceptives poses a big challenge for some women." Only few of the participants expressed satisfaction on the amount of knowledge on modern contraceptives, but majority of the participants responded that they have inadequate information about modern contraceptives, which could devalue their urgency for contraceptive services. Participant 3 stated, "I don't have adequate information or education on modern contraceptives. I has never received any services on modern contraceptives at the health facility." Participant 4 commented, "I think there is more I don't know concerning the use of modern contraceptives."

Questions were asked to obtain the concerns of participants on whether the health facilities in the Municipality are offering adequate contraceptive services, to give them the confidence or conviction to use the various modern contraceptives. With regards to the provision of adequate services, Participant 2 stated, "I thinks the staff are doing well but from the few friends I has spoken to, it seems explanation is not detailed as to the various types available and their possible side effects..." Participant 9 said, "The service is very effective as the midwives are always punctual and ready to assist." Participant 8 expressed

some satisfaction with the contraceptive services when she stated, "In general the service providers are doing well but at times the chosen method is not available."

The confidence to use a modern contraceptive can be linked to the attitude and competence of the service providers. Participant 6 indicated this when she stated, "The facility l went to, the staff were cordial and very accommodating so l would always want to go there whenever the need arises." Participant 15 however commented that, "Personally l see that the invasive procedures are left in the hands of a few staff to do." Participant 2 also mentioned, "I think the staff are doing well but from the few friends l has spoken to, it seems explanation is not detailed as to the various types available and their possible side effects. Personally, l see that the invasive procedures are left in the hands of a few staff to do, so it causes a lot of delay."

4. Discussion

Most of the participants mentioned different modern contraceptive methods including hormonal, condoms, sterilization, and intrauterine devices; their sources of information included the media (television), health care providers, professional background, friends, and family members. Even though the Ghana Health Service is trying so much to educate the populace and promote the use of modern contraceptives, the level of awareness seems to remain low and thus contributes to the declining contraceptive prevalence rate. Most of the participants who had ever used a contraceptive method complained about the unpleasant experiences they had; which sometimes deters them from using it again. Participant 2 commented that the side effects are her utmost concern, and Participant 4 believed that modern contraceptives are not 100% safe because they can still lead to pregnancy.

4.1. Reasons for Non-use of Modern Contraceptives

Participants shared their understanding of the reasons for the non-use of modern contraceptives. Most of them pointed out that there are side effects associated with the use of modern contraceptives. A few of the participants mentioned difficulty in assessing the right contraceptive method, anxiety, and religious factors as a hindrance to the use of modern contraceptives. A participant pointed out that the modern contraceptive is not completely safe because it can still lead to pregnancy. However, some participants' responses revealed that the non-use of modern contraceptives has negative consequences such as more unwanted pregnancies, criminal or illegal termination of pregnancy, and lack of birth spacing. Previous studies by Kahsay and Nettey confirm the study findings by indicating that the low or non-use of modern contraceptives is a health burden to reproductive-age women [12,18].

The fears and concerns the women expressed about the non-use of modern contraceptives signified their perceived threat to unintended pregnancy and their conscious desire to use modern contraceptives. The study revealed that a significant concern among women was experiencing negative outcomes from unintended pregnancies and

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getting pregnant even when they were not ready for it. This finding confirms results from other studies that show that internal or external stimuli trigger the woman's perception of a threat to pregnancy and this facilitates the consideration to remedy that threat [2,8]. A study by Mardi also found that women who resumed menses shortly after delivery, that is an average of about a month, tend to adopt a contraceptive method [9].

4.2. Threats/Barriers/ Challenges

Some constraining factors stand between women's preferences on the number and timing of their pregnancies. When women are faced with barriers or challenges to contraceptives, their ability to avoid unintended pregnancies is restrained. Participants mentioned the negative experiences they faced following the use of some of the modern contraceptive methods (hormonal), including irregular menstruation, bleeding disorders, pain in the chest, and delayed fertility. Other research studies indicate that the fear of side effects and difficulty in adhering to specific contraceptive methods serve as a challenge to contraceptive use [27,28].

Other participants shared their misconceptions about modern contraceptives as rendering a woman infertile, which is in line with studies by Ochako and Wulifan [14,29]. A participant stated that modern contraceptives can lead to cervical cancer and a change in sexual drive. The negative consequences of using modern contraceptives as shared by the participants were either based on their personal experience or that of others. Participant 2 mentioned that some people do experience reactions to the condom if they are allergic to latex.

Male partner rejection and access to contraceptive services was not a major issue for the participants, contrary to a report by Cleland, who attributed lack of access to services as a root cause of an unmet need for family planning [3]. Only one participant attributed spouse disagreement as a barrier to the use of modern contraceptives. Other concerns that were raised by participants were their religious beliefs which prevented them from effectively using modern contraceptives. Participant 8 indicated that the religious background of an individual, such as a Catholic, poses a challenge in using modern contraceptives. This finding confirms the study by Gele that religious beliefs do not favor contraceptive use [30-33].

5. Conclusion

Women in the reproductive-age group constitute a population at greater risk of unintended pregnancy. There are knowledge gaps in understanding the low utilization of modern contraceptives despite the availability of family planning services [1]. Despite the availability of modern contraceptive services, there are still records of low usage. A few of the women complained of not having adequate information on all the modern contraceptive methods and their side effects. The study findings could contribute to the knowledge base of the various factors that influence the decision to use modern contraceptives among reproductive-

age women. The results of the study could further promote the development of appropriate health interventions to address the barriers to the use of modern contraceptives. The lived experiences of participants highlighted the need for further education about the reproductive health needs of women.

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References

- World Health Organization (2016) Family planning and contraception. Retrieved from.
- 2. Beson, P., Appiah, R., & Adomah-Afari, A. (2018). Modern contraceptive use among reproductive-aged women in Ghana: prevalence, predictors, and policy implications. *BMC women's health, 18,* 1-8.
- 3. Cleland, J., Harbison, S., & Shah, I. H. (2014). Unmet need for contraception: issues and challenges. *Studies in family planning*, *45*(2), 105-122.
- 4. Afriyie, P., & Tarkang, E. E. (2019). Factors influencing use of modern contraception among married women in ho west district, Ghana: descriptive cross-sectional study. *Pan African medical journal*, 33(1).
- 5. Grindlay, K., Dako-Gyeke, P., Ngo, T. D., Eva, G., Gobah, L., Reiger, S. T., ... & Blanchard, K. (2018). Contraceptive use and unintended pregnancy among young women and men in Accra, Ghana. *PloS one*, *13*(8), e0201663.
- 6. Worku, S. A., Ahmed, S. M., & Mulushewa, T. F. (2019). Unmet need for family planning and its associated factor among women of reproductive age in Debre Berhan Town, Amhara, Ethiopia. *BMC research notes*, 12, 1-6.
- 7. Ghana Health Service Eastern Region Annual Report (2016) Koforidua.
- 8. Cohen, N., Mendy, F. T., Wesson, J., Protti, A., Cissé, C., Gueye, E. B., ... & Buttenheim, A. (2020). Behavioral barriers to the use of modern methods of contraception among unmarried youth and adolescents in eastern Senegal: a qualitative study. *BMC Public Health*, 20, 1-9.
- 9. Mardi, A., Ebadi, A., Shahbazi, S., Esmaelzade saeieh, S., & Behboodi Moghadam, Z. (2018). Factors influencing the use of contraceptives through the lens of teenage women: a qualitative study in Iran. *BMC public health*, 18, 1-8.
- 10. Adongo, P. B., Tabong, P. T. N., Azongo, T. B., Phillips, J. F., Sheff, M. C., Stone, A. E., & Tapsoba, P. (2014). A comparative qualitative study of misconceptions associated with contraceptive use in southern and northern Ghana. Frontiers in public health, 2, 137.
- 11. Azmat, S. K., Ali, M., Ishaque, M., Mustafa, G., Hameed, W., Khan, O. F., ... & Munroe, E. (2015). Assessing predictors of contraceptive use and demand for family planning services in underserved areas of Punjab province in Pakistan: results of a cross-sectional baseline survey. *Reproductive health*, 12, 1-10.
- 12. Kahsay, Z. H., Tegegne, D., Mohammed, E., & Kiros, G.

- (2018). Application of individual behavioral models to predict willingness to use modern contraceptives among pastoralist women in Afar region, Northern Ethiopia. *PloS one*, *13*(5), e0197366.
- 13. Kaniki, F. R. (2019). Factors influencing the use of modern contraceptive methods among rural women of child bearing age in the Democratic Republic of the Congo. *Journal of family medicine and primary care*, 8(8), 2582-2586.
- 14. Ochako, R., Mbondo, M., Aloo, S., Kaimenyi, S., Thompson, R., Temmerman, M., & Kays, M. (2015). Barriers to modern contraceptive methods uptake among young women in Kenya: a qualitative study. *BMC public health*, *15*, 1-9.
- 15. Hindin, M. J., McGough, L. J., & Adanu, R. M. (2014). Misperceptions, misinformation and myths about modern contraceptive use in Ghana. *Journal of Family Planning and Reproductive Health Care*, 40(1), 30-35.
- 16. Asaolu, I. O., Okafor, C. T., Ehiri, J. C., Dreifuss, H. M., & Ehiri, J. E. (2017). Association between measures of women's empowerment and use of modern contraceptives: an analysis of Nigeria's demographic and health surveys. *Frontiers in public health*, *4*, 293.
- 17. Mutumba, M., Wekesa, E., & Stephenson, R. (2018). Community influences on modern contraceptive use among young women in low and middle-income countries: a cross-sectional multi-country analysis. *BMC public health, 18,* 1-9.
- 18. Nsubuga, H., Sekandi, J. N., Sempeera, H., & Makumbi, F. E. (2015). Contraceptive use, knowledge, attitude, perceptions and sexual behavior among female University students in Uganda: a cross-sectional survey. *BMC women's health*, 16, 1-11.
- 19. Maternal and Child Health Report (2017). Ghana Health Service
- 20. Ghana Statistical Service. (GSS) (2017) 2010 Population and housing census: summary report.
- 21. Reproductive and Child Health Unit (2019) Annual Report, Koforidua.
- 22. Nettey, O. E. A., Enuameh, Y. A., Mahama, E., Sulemana, A., Adjei, G., Gyaase, S., ... & Owusu-Agyei, S. (2015). Family planning awareness, perceptions and practice

- among community members in the Kintampo districts of Ghana. *Advances in Reproductive Sciences*, 3(01), 1-12.
- 23. Weyant, E. (2022). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches: by John W. Creswell and J. David Creswell, Los Angeles, CA: SAGE, 2018, \$38.34, 304pp., ISBN: 978-1506386706.
- 24. Rudestam, K. E., & Newton, R. R. (2014). *Surviving* your dissertation: A comprehensive guide to content and process. Sage publications.
- 25. Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice.* Sage publications.
- 26. Nelson, J. (2017). Using conceptual depth criteria: addressing the challenge of reaching saturation in qualitative research. *Qualitative research*, *17*(5), 554-570.
- 27. Lathlean, J. (2006). Qualitative analysis. In Gerrish K, Lacy A (eds) The research process in nursing, *Oxford: Blackwell Science*, 417-433.
- 28. Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods*, *16*(1), 1609406917733847.
- 29. Ravitch, S. M., & Carl, N. M. (2019). *Qualitative research:* Bridging the conceptual, theoretical, and methodological. Sage publications.
- 30. Islam, S., & Hasan, M. (2016). Women knowledge, attitude, approval of family planning and contraceptive use in Bangladesh. *Asia Pacific Journal of Multidisciplinary Research*, 4(2), 76-82.
- 31. Sedgh, G., Ashford, L. S., & Hussain, R. (2016). Unmet need for contraception in developing countries: examining women's reasons for not using a method.
- 32. Wulifan, J. K., Brenner, S., Jahn, A., & De Allegri, M. (2015). A scoping review on determinants of unmet need for family planning among women of reproductive age in low- and middle-income countries. *BMC women's health*, 16, 1-15.
- 33. Gele, A. A., Musse, F. K., Shrestha, M., & Qureshi, S. (2020). Barriers and facilitators to contraceptive use among Somali immigrant women in Oslo: A qualitative study. *PloS one*, *15*(3), e0229916.