

The Peak of Dawn: A Parallel Mixed Method Exploration towards the Promotion of Family Planning

Ian Frank E. Erni., R.N., Dr. Winifredo E. Licop., R.N., Aira Janine B. Ostria R.N., Charmae D. Glorioso., R.N., Jeremiah Lianne D. Ilagan., R.N.

Olivarez College Tagaytay, Cavite, Philippines

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.9010320>

Received: 07 January 2025; Accepted: 16 January 2025; Published: 21 February 2025

ABSTRACT

Teenage pregnancy remains a pressing social concern in the Philippines, with a crude birth rate of 5.4% among individuals aged 15-19, equating to 5,531 births recorded in 2022. This issue is often linked to the increased sexual urges typical of adolescence, which can lead to unintended pregnancies when young females are fertile. A community assessment conducted in November 2022 by third-year nursing students in selected barangays of Tagaytay City, Cavite, highlighted participants' hesitance to discuss family planning topics. This research employed a Parallel Mixed Method framework to investigate the knowledge, attitudes, and practices (KAP) concerning family planning among 138 stratified participants, achieving a Cronbach's alpha coefficient of 0.884. Additionally, semi-structured interviews were carried out with eight intentionally chosen participants to delve into their perceptions of the benefits and barriers to family planning, as well as interpersonal influences and self-efficacy. Quantitative data were analyzed using descriptive statistics and comparative tests, while qualitative insights were derived through **Thematic Analysis** following Braun and Clarke's guidelines, facilitated by MAXQDA software. The results revealed alarming trends: participants demonstrated low levels of knowledge regarding family planning methods, maintained a generally positive attitude towards these methods, yet exhibited very limited practical application. Significant variations were noted between KAP scores and demographic characteristics, with a pronounced lack of awareness about available family planning services. Peer influence was identified as a critical factor affecting their views. To address these findings, the researchers recommend establishing youth-friendly and non-judgmental family planning services aimed at increasing knowledge and awareness among adolescents. Additionally, an informational pamphlet was created at the barangay health center as part of an initiative to promote reproductive health education effectively. This study highlights the urgent need for targeted strategies to reduce teenage pregnancies and enhance reproductive health literacy among Filipino youth.

Keywords: “Knowledge, Attitude, Practice, Family Planning, Adolescents, Young Adults, Natural Methods, Modern Contraceptives”

INTRODUCTION

High fertility rates pose significant challenges to public health, often associated with poverty and inadequate government responses in maternal and child healthcare, which can lead to higher mortality rates (Lwelamira et al., 2012; Mathe et al., 2011; Woldemicael & Beaujot, 2011; Chipeta et al., 2010; UNFPA, 2008). The crude birth rate in the Philippines reached 1,790,367 in 2012, with the highest incidence of childbirth occurring among women aged 20 to 24 (Philippine Statistics Authority, 2017). Teenage pregnancy continues to be a significant concern, positioning the Philippines among the ASEAN nations with the highest rates of early childbearing. In 2022, around 5.4% of total births—representing 5,531 births to females aged 15 to 19—were documented (PSA, 2022)... Region IV-A CALABARZON recorded the highest incidence, with a total of 8,008 cases (NCC, 2021). This issue has substantial economic repercussions, as teenage pregnancies often disrupt education and limit future employment opportunities for women. The estimated economic impact is around Php 83,000 over their working lives (The United Nations Population Fund, 2016).

In response to these challenges, Republic Act 10354—known as “The Responsible Parenthood and Reproductive Health Act of 2012”—was implemented to guarantee universal access to contraception. This

legislation aims to manage fertility rates while enhancing sexual education and maternal care. Family planning methods empower couples or individuals to make informed choices before starting a family (World Health Organization, 2020). However, access to these services faced significant limitations during the COVID-19 pandemic due to lockdown measures (Santos, 2020).

This study aims to fill gaps in local resources for family planning services. Existing literature indicates that discussions around family planning are often dominated by participants from Protestant or Islamic backgrounds and primarily involve men. Additionally, opposition from the Roman Catholic Church regarding artificial contraception complicates access to these resources. Initial findings from Community Diagnosis conducted Bachelor of Science in Nursing 3rd year student Batch 2024 suggest that participants are reluctant to engage in conversations about family planning.

The Titled "The Peak of Dawn," investigates the peak sexual drive among adolescents and young adults, acknowledging that both genders may cause untimely pregnancy, when engaging in unprotected sexual intercourse, particularly during the female's fertile period. The study evaluates knowledge, attitudes, and practices concerning family planning while examining perceived benefits, barriers, self-efficacy, and interpersonal influences. This research is anchored in Nola J. Pender's Health Promotion Model, which provides a theoretical framework for understanding health behaviors and their implications for promoting effective family planning strategies.

Wherefore, this study seeks to serve as a foundational resource for health promotion initiatives aimed at individuals aged 15-25 in the in Tagaytay City Philippines. It aspires to enhance nursing education through comprehensive lectures and raise awareness of these critical issues to improve nursing practice. Additionally, it aims to provide valuable insights for future community-based research efforts.

METHODS

This study employed a parallel mixed-methods design to explore qualitative and quantitative data as well as family planning issues from the context of Tagaytay City Cavite, Philippines barangay, which has 8 small settlements known as Puroks. Creswell and Pablo-Clark (2017) outline this approach as a parallel design because both quantitative and qualitative methods of data collection are done in conjunction. This technique enhances the dependability and validity of results as it allows both sets of data to be compared. It also takes care of the quantitative and qualitative analyses with considerable stress on the qualitative side.

Table 1. Demographic Profile of the Participants in terms of Purok

Purok Number	Number of Target Participants	Percentage
156	15	11%
157	14	10%
158	22	16%
159	14	10%
160	12	9%
161	29	21%
162	17	12%
163	15	11%
8 Puroks	138	100%

One hundred thirty eight participants aged between 15 and 25 years were drawn from a population of 873 as per the modified survey questionnaire prepared from the work of Lwelamira, Mnyamagola and Msaki (2012). This questionnaire demonstrated a high reliability score with a Cronbach's alpha of 0.884. It was structured into four sections: (1) demographic profiles including age, sex, marital status, religion, educational background, and number of children; (2) knowledge; (3) attitudes; and (4) practices regarding family planning, all measured using a four-point Likert scale.

To gather qualitative data, a purposive sampling technique was employed, selecting eight participants from each Purok within Barangay Tagaytay City. The criteria for selection included being between 15 and 25 years old, identifying as male or female, residing in the barangay, being literate, and being willing to participate. Semi-structured interview questions were designed to explore perceived barriers, benefits, and self-efficacy related to family planning. These interviews were assessed by two Clinical Instructors from a local school to ensure quality.

All questionnaires were translated from English to Tagalog to enhance understanding among participants. A licensed Filipino teacher reviewed the translations to confirm their reliability and validity, leading to necessary modifications.

Exclusion criteria for the study included individuals unable to provide informed consent, those under 14 or over 26 years old, residents outside Barangay Tagaytay City during the survey and interviews, critically ill individuals, and those unable to communicate effectively. Informed consent was obtained from all participants, with additional consent from guardians for minors aged 15 to 17. Quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS). Demographic data were summarized using frequency and percentage analyses. Descriptive statistics measured central tendencies in KAP scores, while inferential statistics—specifically t-tests and one-way ANOVA—were applied to identify significant differences between demographic variables and KAP outcomes.

For qualitative analysis, the researchers utilized Braun and Clarke's six-step thematic analysis as an initial framework. They conducted in-depth coding of interview transcriptions with MAXQDA software to enhance the rigor of their findings through systematic data management. Finally, after analyzing both qualitative and quantitative data separately, the researchers integrated their results to provide a more comprehensive understanding of the topic.

RESULTS

Table 2. Mixing of Data

Quantitative Results	Qualitative Results
Knowledge of the participants in family planning- 2.00: Low Level of Knowledge	Theme 2: Perceived Barrier: Oblivious towards Family Planning Subtheme 4.2. Family Planning Dissemination towards Empowerment
Attitude of the participants towards family planning- 2.78: High Level of Attitude	Subtheme 1.3. Diminish the Aftermath of Sexual Behavior Subtheme 3.1. Advancement of personal development Subtheme 3.2: Indifferent to religious judgment in family planning Subtheme 3.3. Proactively desire to use Family Planning
Practice of the participants towards family planning- 1.23: Very Low Practice	Theme 2: Perceived Barrier: Oblivious towards Family Planning. Subtheme 4.1. The Peers as Backburner

The findings presented in the table above synthesize both quantitative and qualitative data to examine young people's knowledge, attitudes, and practices regarding family planning. The quantitative analysis revealed that participants had a mean score of 2.00 for knowledge, indicating a limited understanding of family planning concepts. This is further illustrated by the qualitative theme "Obliviousness toward Family Planning," where participants voiced their unfamiliarity with available services and methods. Many blamed it on poor attention paid to family planning within the educational and community settings. There are many reasons for the low level of knowledge in the group. In the interviews, so many of them indicated that ignorance was the main challenge barring their understanding. For example, the ones with higher education said that they were told much more with regard to family planning than other people. Some of them also said, "I feel as if I have not studied anything about that." (Pt 7, Pos. 53-54) this may contribute significantly to existing knowledge gaps, which affects both in school and out of school youth. A particular number of respondents pointed to an overall ignorance of how to practically apply family planning methods, which reveals the shortcomings in the sex

education in the Philippines. Furthermore, some participants pointed to the lack of understanding towards some elements of family planning.

Even with their limited knowledge, participants showed a notably positive attitude toward family planning. Both the quantitative and qualitative findings back this optimistic view, underscoring an understanding of the advantages that family planning can offer for both individual and societal health. Participants recognized the significance of family planning in avoiding unintended pregnancies and sexually transmitted infections, promoting a more responsible attitude toward sexual health. One participant highlighted how awareness can empower informed decision-making, while another raised concerns about the increasing rates of teenage pregnancies. Other Participants are very interested in using family planning methods in the future as part of taking responsibility for their reproductive health. The participant who spoke said, "I know that it's difficult to raise a family, so it's better to practice family planning." This statement illustrates an awareness of how family planning can help people manage their life goals alongside their responsibilities.

According to some participants key reason for the proclivity towards planning families, it promotes personal growth. Many participants said that with effective family planning, they could focus on personal development and future goals. This supports a body of research suggesting that access to family planning resources empowers people to pursue educational and career opportunities unhindered by the interruptions unplanned pregnancies can bring. Interestingly, little concern was expressed by participants regarding religious perspectives on family planning. They emphasized that decisions about contraception should be personal choices rather than being dictated by religious teachings. One participant remarked that religious restrictions shouldn't prevent someone from using contraception if they feel it's necessary. This perspective highlights a growing trend of prioritizing individual autonomy over traditional views when it comes to reproductive health decisions.

The low levels of engagement in family planning practices among participants were closely tied to their limited understanding of the subject and the societal pressures they encountered. These results underscore the urgent need for educational programs that specifically aim to raise awareness and empower young individuals to make informed choices without outside influences. One major obstacle identified was a lack of knowledge about available resources and methods, which was summed up in the theme "Obliviousness Toward Family Planning." Some participants felt that family planning wasn't relevant to their current situations, often pointing to their lack of experience or family obligations as reasons for not getting involved.

Moreover, many participants were unaware of free family planning services and viewed modern contraceptives as costly. One participant shared, "Family planning methods can be quite expensive... if you're not in a good financial situation, you'll just use that money for your basic needs" (Pt 4, Pos. 35-37). This highlights the financial barriers that can prevent individuals from accessing essential family planning resources. This financial barrier suggests that individuals from lower socioeconomic backgrounds may prioritize their immediate needs over engaging in family planning.

Societal influences played a significant role in shaping participants' attitudes toward family planning. Concerns about peer perceptions led some individuals to hesitate or completely refrain from utilizing these methods. One participant shared their apprehension regarding others' opinions: "Some people still worry about what others will think... which is why they hesitate to use family planning" (Pt 1, Pos. 18).

The subtheme "Family Planning Dissemination towards Empowerment" emphasizes the necessity of disseminating information about family planning in public spaces to help decrease unintended pregnancies and enhance the well-being of individuals and families. It is crucial for local authorities, including Barangay Health Workers and school health personnel, to be adequately informed so they can effectively advocate for these issues.

This study, titled "The Peak of Dawn," explores sexual awakening among individuals aged 15-25—a period marked by exploration and intimacy. By integrating both quantitative and qualitative data, the research provides valuable insights into various dimensions of family planning, such as knowledge levels, attitudes, practices, perceived benefits, barriers, self-efficacy, and social influences. In light of these findings, the

researchers created a tri-fold leaflet titled "Ang Paghahanda Mo ay Kinabukasan Ko." This resource highlights the importance of future family planning concerning children's physiological needs and their overall sense of security and belonging. The leaflet outlines different family planning methods—natural, artificial, and permanent—along with their effectiveness rates and definitions. It also addresses common misconceptions while underscoring the benefits of family planning for families as a whole. All information is sourced from the Department of Health.

DISCUSSION

This study aimed to assess the knowledge, attitudes, and practices (KAP) regarding family planning among adolescents and young adults in selected Barangays in Tagaytay City. It also sought to identify significant differences between demographic variables and KAP, as well as to explore perceived benefits, barriers, self-efficacy, and interpersonal influences that affect family planning decisions in this group.

The findings show that participants had a low level of knowledge about family planning. This is consistent with research by Semanchew Kasa et al. (2018) and Bekele et al. (2020), which found that around half of women of reproductive age in Northwest Ethiopia and emerging regions of Ethiopia had poor knowledge of family planning. In contrast, studies by Lincoln (2021) and Lwelamira et al. (2012) reported that women of reproductive age in Fiji and the Mpwapa District of Central Tanzania demonstrated moderate to high levels of knowledge about family planning.

Participants showed a strong positive attitude towards family planning. This aligns with research conducted by Wodaynew and Bekele (2021) among postpartum women at Jimma University Medical Center, as well as Dhaher (2017) in Southern Saudi Arabia. Both studies support the finding that participants had moderate to high levels of favorable attitudes towards family planning options.

Despite these positive attitudes, the study found a very low level of practice regarding family planning among participants. This contrasts with findings from Amante et al. (2013), which indicated that Filipino fathers had both a positive attitude and practice towards artificial contraceptive methods.

Participants acknowledged several perceived benefits of family planning, such as the ability to effectively time pregnancies and reduce the consequences of sexual behaviors. However, factors like peers, culture, and religion significantly influenced their perspectives on family planning. A qualitative study by Hoyt et al. (2021) across various demographics also highlighted these influences.

The study underscores the necessity for enhanced family planning services targeted at youth populations. It advocates for the implementation of non-judgmental and youth-friendly support systems within communities. The researchers suggest utilizing informative leaflets to raise awareness about family planning options and recommend organizing developmentally appropriate seminars within schools and communities.

This research highlights the critical importance of addressing family planning among youth who are vulnerable to early childbearing as they navigate their identities and societal realities. It emphasizes the role of Barangay Health Workers and school health authorities in promoting awareness, knowledge, and positive perceptions regarding family planning.

Several limitations were identified in this study. The sample included only a limited number of male participants and adolescents, restricting the comprehensiveness of insights regarding their perceptions of family planning. Furthermore, the study did not explore significant relationships between demographic variables and KAP, which could provide valuable indicators for understanding various influencing factors.

Future research should consider investigating cultural norms, beliefs, values, and misconceptions surrounding family planning among participants. Additionally, evaluating the resources available at Barangay Health Centers concerning family planning services—including attitudes of Barangay Health Workers (BHWs), accommodation strategies, campaigns, and advocacy efforts—would be beneficial. Engaging with Barangay Health Nurses could also provide critical data on this topic to enrich future studies.

REFERENCES

1. Alege, S., Matovu, J., Ssensalire, S., & Nabiwemba, E. (2016). Knowledge, sources and use of family planning methods among women aged 15-49 years in Uganda: a cross-sectional study. *The Pan African Medical Journal*, 24. <https://doi.org/10.11604/pamj.2016.24.39.5836>
2. Alenezi, G. & Haridi, H. (2021). Awareness and use of family planning methods among women in Northern Saudi Arabia. *DOI: https://doi.org/10.1186/s43043-021-00053-8*
3. Ali, S., Bangcola, A., & Lawi, A. (2022). Exploring the issues, practices, and prospects of familyplanning among married couples in Southern Philippines. *Belitung Nursing Journal*, 8(1), 35–43. <https://doi.org/10.33546/bnj.1939>
4. Amante, J., Amit, J. Amparado, K., Anchores, A., Andal, M., Andrade, L., Ang, C., Angulo, P., Andover, F., Aquino, E., & Aquino, J. (2013). Awareness, attitudes and practices of Filipino fathers in artificial family planning: A descriptive study. Retrieved from <https://library.uerm.edu.ph/kohaimages/UERM/repository/Health%20Sciences%20Journal/Vol2%20No1%20January-June%202013/HSJ%20vol.2%20no.1%202013-12-17.pdf> on April 8, 2023.
5. Anbesu, E. W., Aychiluhm, S. B., Alemayehu, M., Asgedom, D. K., & Kifle, M. E. (2023). A systematic review and meta-analysis of sexually transmitted infection prevention practices among Ethiopian young people. *SAGE Open Medicine*, 11, 205031212211456. <https://doi.org/10.1177/20503121221145640>
6. Armah-Ansah, E. (2018). Perception of Family Planning Use among Married Men and Women in Anomabu Community. DOI: 10.21767/2471-9749.100054
7. Avong, H. (2012). Relationship between Religion and Use of Modern Contraceptives among the Atyap in Kaduna State, Nigeria. 2(8). <https://core.ac.uk/download/pdf/234673259.pdf>
8. Barrett, J. B., Da Vanzo, J., Ellison, C. G., & Grammich, C. (2014). Religion and Attitudes Toward Family Planning Issues Among US Adults. *Review of Religious Research*, 56(2), 161–188. <https://www.jstor.org/stable/43186268>
9. Barrett, J. B., Da Vanzo, J., Ellison, C. G., & Grammich, C. (2014). Religion and Attitudes Toward Family Planning Issues Among US Adults. *Review of Religious Research*, 56(2), 161–188. <https://www.jstor.org/stable/43186268>
10. Bekele, D., Surur, F., Nigatu, B., Teklu, A., Getinet, T., Kassa, M., Gebremedhin, M., Gebremichael, B., & Abesha, Y. (2020). Knowledge and Attitude Towards FamilyPlanning Among Women of Reproductive Age in Emerging Regions of Ethiopia. *Journal of Multidisciplinary Healthcare*, 13, 1463–1474. <https://doi.org/10.2147/JMDH.S277896>
11. Bhatt, N., Bhatt, B., Neupane, B., Karki, A., Bhatta, T., Thapa, J., Basnet, L.B., Budhathoki, S.S. (2021). Perceptions of family planning services and its key barriers among adolescent and young people in Eastern Nepal: A qualitative study. *DOI: 10.1371/journal.pone.0252184*. PMID: 34038439; PMCID: PMC8153486.
12. Braun, V., Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2): 77-101.
13. Breakthrough Research & De La Salle University. (2020). Improving reproductive health and family planning outcomes among outof-school adolescents and youth in the Philippines. Retrieved from https://knowledgecommons.popcouncil.org/departments_sbsr-pgy/1249/ on October 29, 2022.
14. Casterline, J., Perez, A., and Biddlecom, A. (2013). Factors Underlying Unmet Need for Family Planning in the Philippines. Retrieved from https://www.researchgate.net/profile/John-Casterline/publication/13904423_Factors_Underlying_Unmet_Need_for_Family_Planning_in_the_Philippines/links/596f9cd70f7e9b4417366909/Factors-Underlying-Unmet-Need-for-Family-Planning-in-the-Philippines.pdf on October 16, 2022.
15. Cohen, N., Mendy, F.T., Wesson, J., Protti, A., Cisse, C., Gueye, E., Trupe, L., Floreak, R., Guichon, D., Lorenzana, K., & Bутtenheim, A. (2020). Behavioral barriers to the use of modern methods of contraception among unmarried youth and adolescents in eastern Senegal: a qualitative study. <https://doi.org/10.1186/s12889-020-09131-4>
16. Craig, A., Dehlendorf, C., Borrero, S., Harper, C., & Rocca, C. ' Contraceptive Knowledge and Attitudes: Disparities by Race/Ethnicity and Age. Retrieved from <https://linkinghub.elsevier.com/retrieve/pii/S1049386714000097> on March 22, 2023.

17. Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
18. Dangat, C. M., & Njau, B. (2013). Knowledge, attitudes and practices on family planning services among adolescents in secondary schools in Hai District, northern Tanzania. *Tanzania Journal of Health Research*, 15(1). <https://doi.org/10.4314/thrb.v15i1.3>
19. Das, P., Samad, N., Al Banna, H., Sodunke, T., Hagan, J., Ahinkorah, B., & Seidu, A. (2021). Association between media exposure and family planning in Myanmar and Philippines: evidence from nationally representative survey data. *Contraception and Reproductive Medicine*, 6(1). <https://doi.org/10.1186/s40834-021-00154-9>
20. De Vargas, C., Ewerling, F., Hellwig, F., & de Barros, A. (2019). Contraception in adolescence: the influence of parity and marital status on contraceptive use in 73 low-and-middle-income countries. *Reproductive Health*, 16. <https://doi.org/10.1186/s12978-019-0686-9>
21. Demographic and Health Surveys (2014). Chapter 4: Family Planning. Retrieved from <https://dhsprogram.com/pubs/pdf/FR103/04Chapter04.pdf> on April 8, 2023.
22. Demographic and Health Surveys (2017). Usage of any methods of contraception in the Philippines among married women aged 15-49. Retrieved from <https://dhsprogram.com/Topics/Family-Planning.cfm> on October 14, 2022.
23. Demographic Research and Development Foundation Inc. & University of the Philippines Population Institute (2014). *YAFS4 Key Findings 2013*.
24. Department of Health. (n.d.). What are the Benefits of using Family Planning? Retrieved from <https://doh.gov.ph/faqs/What-are-the-benefits-of-using-family-planning#:~:text=Lightens%20the%20burden%20and%20responsibility,time%20for%20treatment%20and%20recovery> on March 25, 2023.
25. Dhaher A. (2017). Family planning KAP survey in the Southern Region of Saudi Arabia. *Int J Reprod Contracept Obstet Gynecol*;6(11):4798-4807.
26. Gadin, R. (2012). Family planning methods among couples of a selected Barangay in Tacloban City: Basis for healthcare program enhancement. Faculty Committee of the Graduate School of the Philippine Women's University Manila, 1–122. Retrieved from <https://sigma.nursingrepository.org/handle/10755/21758> October 24, 2022.
27. Giedd, J.N. (2015). The amazing teen brain. *Scientific American*, 312, 32-37. doi:10.1038/scientificamerican0615-32
28. Gueye, A., Speizer, I. S., Corroon, M., & Okigbo, C. C. (2015). Belief in Family Planning Myths at the Individual and Community Levels and Modern Contraceptive Use in Urban Africa. *International Perspectives on Sexual and Reproductive Health*, 41(04), 191–199. <https://doi.org/10.1363/4119115>
29. Guttmacher Institute (n.d.) Facts on Barriers to Contraceptive Use in the Philippines. Retrieved from <https://www.guttmacher.org/sites/default/files/pdfs/pubs/FB-contraceptives-philippines.pdf> on April 8, 2023.
30. Habib, M. (2022). Population Institute. Barriers to Family Planning: Challenges in Access Around the World. Retrieved from <https://www.populationinstitute.org/resource/barriers-to-family-planning-challenges-in-access-around-the-world/>
31. Hoyt, J., Krishnaratne, S., Hamon, J., Boudarene, L., Chantler, T., Demissie, S., Landegger, J., Moseti, E., Marcus, S., Kambanje, M., Pryor, S., Spilotros, N., Gnitoungbe, M., Curry, D., & Webster, J. (2021). “As a woman who watches how my family is... I take the difficult decisions”: a qualitative study on integrated family planning and childhood immunisation services in five African countries. *Reprod Health* 18, 41 <https://doi.org/10.1186/s12978-021-01091-1>
32. Kassim, M., Ndumbaro, F. (2022). Factors affecting family planning literacy among women of childbearing age in the rural Lake zone, Tanzania. <https://doi.org/10.1186/s12889-022-13103-1>
33. Lantiere, A., Rojas, M., Bisson, C., Fitch, E., Woodward, A., & Stevenson, E. (2022). Men's Involvement in Sexual and Reproductive Health Care and Decision Making in the Philippines: A Systematic Review of the Literature. *American Journal of Men's Health*. 2022;16(4). doi:10.1177/15579883221106052
34. Lechner, K. E., Garcia, C. M., Frerich, E. A., Lust, K., & Eisenberg, M. E. (2013). College Students' Sexual Health: Personal Responsibility or the Responsibility of the College? *Journal of American College Health*, 61(1), 28–35. <https://doi.org/10.1080/07448481.2012.750608>

35. Lincoln, J., Mohammadnezhad, M., & Khan, S. (2021). Knowledge, Attitude, and Practice (KAP) towards Family Planning among Women of Reproductive Age in Fiji. *Global Journal of Health Science, Canadian Center of Science and Education*, vol. 13(4), pages 1-24, April.
36. Lwelamira J, Mnyamagola, G. & Msaki, M. (2012). Knowledge, attitude and practice (KAP) towards modern contraceptives among married women of reproductive age in Mpwapwa District, Central Tanzania, *Current Research Journal of Social Sciences* 4(3): 235-245, 2012
37. Mathe, J.K., Kasonia, K.K., & Maliro, A.K. (2011). Barriers to adoption of family planning among women in eastern democratic republic of Congo. *Afr.J. Reprod. Health*, 15(1): 69-77.
38. Nagai, M., Bellizzi, S., Murray, J., Kitong, J., Cabral, E. I., & Sobel, H. L. (2019). Opportunities lost: Barriers to increasing the use of effective contraception in the Philippines. *PloSone*, 14(7), e0218187. <https://doi.org/10.1371/journal.pone.0218187>
39. Nansseu, J. R. N., Nchinda, E. C., Katte, J.-C., Nchagnouot, F. M., & Nguetsa, G. D. (2015). Assessing the knowledge, attitude and practice of family planning among women living in the Mbouda health district, Cameroon. *Reproductive Health*, 12(1). <https://doi.org/10.1186/s12978-015-0085-9>
40. National Nutritional Council (2021). Negative Impacts of Teenage Pregnancy in the Philippines. Retrieved from <https://nnc.gov.ph/regional-offices/mindanao/region-ix-zamboanga-peninsula/4931-negative-impacts-of-teenage-pregnancy-in-the-philippines> on April 7, 2023.
41. Pepito, V., Amit, A., Tang, C., Co, L., Alianzas, N., De Los Reyes, S., Baquiran, R., & Tanchanco, L. (2022). Exposure to family planning messages and teenage pregnancy: results from the 2017 Philippine National Demographic and Health Survey. *Reprod Health* 19, 229 (2022). <https://doi.org/10.1186/s12978-022-01510-x>
42. Philippine Statistics Authority (2017). Philippine Population Surpassed the 100 Million Mark: Results from the 2015 Census of Population. Retrieved from <https://psa.gov.ph/population-and-housing/title/Philippine%20Population%20Surpassed%20the%20100%20Million%20Mark%20%28Results%20from%20the%202015%20Census%20of%20Population%29> on October 16, 2022
43. Philippine Statistics Authority (2022). Special Release: 2022 National Demographic and Health Survey (NDHS) Key Indicators: Teenage Pregnancy. Retrieved from <http://rssocar.psa.gov.ph/article/special-release-2022-national-demographic-and-health-survey-ndhs-key-indicators-teenage>
44. Reed, E., Donta, B., Dasgupta, A., Ghule, M., Battala, M., Nair, S., Silverman, J., Jadhav, A., Palaye, P., Saggurti, N., & Raj, A. (2016). Access to Money and Relation to Women's Use of Family Planning Methods Among Young Married Women in Rural India. *Maternal and child health journal*, 20(6), 1203–1210. <https://doi.org/10.1007/s10995-016-1921-4> Republic Act No. 10354. The Responsible Parenthood and Reproductive Health Act of 2012.
45. Robles, A. & Baquiano, M. (2021). Exploring Lay Interpretations of Family Planning Through the Use of Social Representations Theory. *Philippine Journal of Psychology*, 2021. doi: 10.31710/pjp/0054.06
46. Santos, A. (2020). Philippines faces baby boom after lockdown hits family planning. Retrieved from <https://www.aljazeera.com/news/2020/7/14/philippines-faces-baby-boom-after-lockdown-hits-family-planning> on April 9, 2023.
47. Santos, M., Ferreira, E., & Ferreira, M. (2016). Knowledge of and attitudes toward sexual and reproductive health among college students. Retrieved on October 10, 2022.
48. Schrupf, L.A., Stephens, M.J., Nsarko, N.E., Akosah, E., Baumgartner, N., Dapaah, S., & Watt, M. (2020). Side effect concerns and their impact on women's uptake of modern family planning methods in rural Ghana: a mixed methods study. <https://doi.org/10.1186/s12905-020-0885-0>
49. Semachew Kasa, A., Tarekegn, M. & Embiale, N. (2018). Knowledge, attitude and practice towards family planning among reproductive age women in a resource limited settings of Northwest Ethiopia. *BMC Res Notes* 11, 577 <https://doi.org/10.1186/s13104-018-3689-7>
50. Sensoy, N., Korkut, Yasemin, K., Akturan, S., Yilmaz, M., Tuz, C., & Tuncel, B. (2018). Factors Affecting the Attitudes of Women toward Family Planning. DOI: 10.5772/intechopen.73255
51. Silumbwe, A., Nkole, T., Munakampe, M. N., Milford, C., Cordero, J. P., Kriel, Y., Zulu, J. M., & Steyn, P. S. (2018). Community and health systems barriers and enablers to family planning and contraceptive services provision and use in Kabwe District, Zambia. *BMC health services research*, 18(1), 390. <https://doi.org/10.1186/s12913-018-3136-4>
52. Starbird, E., Norton, M., & Marcus, R. (2016). Investing in Family Planning: Key to Achieving the Sustainable Development Goals. doi: 10.9745/GHSP-D-15-00374

53. Staveteig, S. (2017). Fear, opposition, ambivalence, and omission: Results from a follow-up study on unmet need for family planning in Ghana. *PloS one*, 12(7), e0182076. <https://doi.org/10.1371/journal.pone.0182076>
54. Sundararajan, R., Yoder, L., Kihunrwa, A., Aristide, C., Kalluvya, S., Downs, D., Mwakisole, A., & Downs, J. (2019). How gender and religion impact uptake of family planning: results from a qualitative study in Northwestern Tanzania. <https://doi.org/10.1186/s12905-019-0802-6>
55. The United Nations Population Fund (2016). P33B in Potential Income Lost Due to Teen Pregnancy. Retrieved from <https://philippines.unfpa.org/en/news/p33b-potential-income-lost-due-teen-pregnancy-0> on April 7, 2023.
56. Todd, N. & Black, A. (2020). Contraception for Adolescents. Doi: <https://doi.org/10.4274/jcrpe.galenos.2019.2019.S0003>
57. United States Agency International Development. (n.d.). Reproductive Health. Retrieved from <https://www.usaid.gov/global-health/health-areas/reproductive-health#:~:text=Family%20Planning%3A%20USAID's%20family%20planning,further%20their%20education%2C%20seek%20employment> on March 25, 2023.
58. Wodaynew T, & Bekele, D (2021) Assessment of Knowledge, Attitude and Practice of Contraceptive Use among Postpartum Women in Jimma University Medical Center, Jimma Town, South West Ethiopia. *Int J Womens Health Wellness* 7:130. doi.org/10.23937/2474-1353/1510130
59. World Health Organization (2016). Community health workers: a strategy to ensure access to primary health care services. Retrieved from https://applications.emro.who.int/dsaf/EMROPUB_2016_EN_1760.pdf on April 1, 2023.
60. World Health Organization (2020). Fact Sheets: Family Planning/contraception methods. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception> on October 10, 2022.
61. World Health Organization (2022). Adolescent Pregnancy. Retrieved from [https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy#:~:text=Adolescent%20mothers%20\(aged%2010%E2%80%9319,birth%20and%20severe%20neonatal%20condition](https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy#:~:text=Adolescent%20mothers%20(aged%2010%E2%80%9319,birth%20and%20severe%20neonatal%20condition) on February 3, 2023.