

Contraceptive use among Adolescent Girls(15-19 Years) in Ogun State, Nigeria

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In Partial Fulfilment of the Award of Masters Degree in Public Health

Certification

This is to certify that Adedoyin Oniyitan with the matriculation number LCU/PG/001600 carried out this research work titled “Assessment of Knowledge and Practice of Contraception among Adolescent Girls (15-19years) in Ogun State Nigeria” in the Department of Public Health, Faculty of Basic Medical and Health Sciences, Lead City University, Ibadan, Oyo state, for the award of Masters Degree in Public Health and that this has not been previously submitted.

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Dedication

This Research work is dedicated to the Almighty

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Acknowledgement

I sincerely appreciate the Most High God for His grace, mercies, gift of life before and beyond this academic journey. My special appreciation to my supervisor, Dr David Oladele for his guidance and efforts invested to push this study to a successful completion. I would also sincerely thank all staff of Department of Public Health, Lead City University Ibadan, for their assistance and guidance through out this thesis.

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“Even though the above-mentioned institutions and persons have assisted in the process of this research work, I alone stand responsible for the errors, if any, found in the work”

Abstract

Adolescent contraception stemmed from that fact that a large majority of unwanted pregnancies, unsafe abortions, that results in deaths are from the age group 15-19 years. It is expected that if these group of people have access to and are knowledgeable about the use of modern contraception, the high rise of the aforementioned cases will reduce drastically.

The objective of the study is to assess the awareness and practice of contraception among the adolescent girls (15-19 years) in Ogun State

The research adopted a cross sectional study using self-administered questionnaires. Three Hundred and Forty Seven (347) adolescent girls 15-19 years who are in the final secondary schools and early tertiary institutions were sampled which required their knowledge, access, and use of contraceptives. Descriptive bivariate and logistic regression was used to test associations between the contraceptive use and the independent variables.

From the study, a higher proportion of the respondents was aware about contraception. Furthermore, the highest proportion of the respondents (87.7%) sourced their contraceptives in pharmacy/drug store, with proportion of the respondents (46.0%) claiming to have heard about contraceptives before.

The result from Table 7 shows that adolescent of age 15-17 are 1.28 less likely to use contraceptives compared to their counterpart who are 18-19 years at (0.477, 1.267 CI). The findings shows from the study that respondent who are practicing Islam are 1.2 less likely to use contraceptives compared to their counterpart who are practicing Christianity at (0.471, 1.278 CI). The findings also shows that people who are living in the rural are 2.09 less likely to use contraceptive compared to their counterpart who live in urban at (0.170, 1.346 CI).

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List of Acronyms

Abbreviation	Meaning
SDGs	Sustainable Development Goals
MDGS	Millenium Development Goals
UHC	Universal Health Coverage
MC	Modern Contraception
WHO	World Health Organization
UNICEF	United Nations Children’s Funds
STIs	Sexually Transmitted Infections
HIV/AIDS Deficiency Syndrome.	Human Immunodeficiency Virus/Acquired Immune
UNFPA	United Nations Population Funds
NDHS	Nigerian Demographic Health Survey
USAID	U.S Agency for International Development
ARFH	Association of Reproductive and Family Health
FMOYD	Federal Ministry of Youth and Development
HARPIN	HIVS/AIDS Reduction Program in Niger-Delta
FMOH	Federal Ministry of Health
IUD	Intra-Uterine Device
LAM	Lactational Amenorrhea Method
CDC	Centers for Disease Control
MEC	Medical Eligibility Criteria for Contraceptive utilization
OCPs	Oral Contraceptive Pills
POPs	Progestogen-only contraceptive Pills
IUDs	Intrauterine Devices
ECP	Emergency Contraceptive Pill
LARCS	Long-acting Reversible Contraceptives
LMICs	Low-Middle Income Countries
TRA	Theory of Reasoned Action

TPB	Theory of Planned Behaviour
PBC	Perceived Behavioural Control
HBM	Health Belief Model

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Chapter One

Introduction

1.1 Background of the research

Adolescence is a stimulating stage of life with evidence of developmental modifications of body anatomy and hormones by the youths which induce the thought of exerting liberty and a desire for privacy. At this stage of their existence, the youngsters face numerous questions about their prospects and this pushes them to make decisions; obey or revolt against norms; or make them question the justifications or the necessities to taking responsibility for such. One of the challenges is the desire to engage in romantic and sexual relationships¹. In 2014, the World Health Organization postulated that adolescent contraception and the prevention of the pregnancy are crucial issues in the 21st century, because of the increasing birth rates records yearly with about 500,000 pregnancy terminations that account for about 50% of the total birth rate in Sub-Saharan Africa^{2,3}. Considering this data, many health divisions in different nations have been charged with an effective and workable track to give ultimate attention to the adolescents' health with special attention to sexual and reproductive health (Sexual and reproductive health (SRH)) to be able to combat the high rate of various factors responsible for what they experienced^{4,5}.

To promote what will help the health care development, the World Health Organization in 2015 in Paris France engaged in a policy called the Sustainable Development Goals (SDG) which has 169 targets and 232 indicators which were all health-based programs⁶. Their focus is secure healthy living for everyone and also ensure peace and prosperity for people. These 17 SDGs are urgent calls with the

potential to solve various global issues confronting the entire human race for both developed and developing nations in a global partnership. Poverty and other deprivations are fundamental challenges responsible for other problems, therefore designing a program capable of solving this will go a long way to address other breeding issues confronting us globally⁷. In a bid to do this, there must be a workable model of programs with corresponding actions and with adequate workable strategies with efficient roadmaps to improve health and education, reduce inequality, and further contribute to economic growth and development globally.

As we already know that Sustainable Development Goals (SDGs) were brought in at the expiration of the Millennium Development Goals (MDGs) as a replacement and even with the inclusion of adolescents in focus as SDGs equally attention and priority to the unmet need for contraception. Adolescents are cared for under Sustainable Development Goal three (SDG- 3) and SDG-5, SDG-5 is basically about addressing gender issues and also effectively come laid down the blueprint for the empowerment of all women and girls⁸. Moreover, some SDG-3 indicators (i.e SDG-3.1, 3.2, 3.7, & 3.8) are directly channelled to helping adolescent girls achieve healthy life as stated below as proposed at the UN meeting held in 2015⁹:

While attention is being given to adolescents in the perspectives of sexual reproductive health system (Sexual and reproductive health (SRH)) the rates of birth in their age group cannot be left out. The birth rate is a yardstick indicator in adolescents that help in quantifying the area of Sexual and reproductive health (SRH)^{4,7,8}. Adolescence depicts a distinct phase that comes with various challenges and sexual health care is vital to these young ones. Reaching this phase, the

adolescents are curious and nervous with intent to know more and start searching for information on the process of fertility and also taking some radical steps to be exposed to the important information about necessity of good sexual health care⁸. Though doing this seems to be okay however, cautions must be applied for them not to be immersed in risky and damaging department that can ruin their lives. Therefore, providing them with the right information and much-needed guidance is crucial to harness the best out of them which in this manner would, in turn, help the health sector to reduce the implications in the society¹¹.

Having adequate access to sexual health care is very important to have healthy contraception. This is the right pathway to adequately enhance control over the fertility of the adolescents while leaving them to be mastered by their fertility is disastrous to their health which is likely to have negative implications on their lives^{8,15}.

According to the recent reports, it was shown that that out of 21 million adolescent girls' pregnancies recorded in low- and middle-income nations they were termed unintended pregnancies while nothing less than 23 million female adolescents have an unmet need for modern contraception (MC) and are at risk of unwanted pregnancy, in confirmation to this, about 777 000 female adolescents have equally been reported to have involved in the developing region^{16,17}.

Early and unintended pregnancies among adolescent girls are being attributed to various characteristic features; specificity of an individual, personal, community and social categories. Moreover, this was as well connected to degenerating health status, educational background, societal perspectives and economic status that may as well

engineer unexpected burden on the development of economic growth and health sectors of developing nations^{18,19}.

In another published work over three million unhealthy pregnancy terminations were carried out by adolescent girls (15–19 years) every year and this has been stated to be responsible for high ratio of casualties from pregnancy/childbirth intricacies, morbidity and other various health challenges generated^{20,21}. According to Neal S et.al., it has been affirmed that early childbearing is one of the major contributing factors that increase jeopardies newborns and young mothers across the globe. Babies given birth to by the teenagers are susceptible to dangers of low birth weight, giving birth prematurely and risky neonatal experiences^{22,23}. Likewise, lack of adequate spacing pregnancy is burdensome for adolescent mothers, this aggravates the health status of the child and the mother while in many lower-income countries, the rate of fertility rates has been reported to be high compared with older women while in many nations the adolescent fertility has reportedly decreased²⁴.

With recently reported data by Family planning Nigeria, Tanzania, and Ethiopia are the current African nations with maximum fertility rates with 109, 57 and 118 births per 1000 girls aged 15–19 per year of the adolescent respectively^{25,26}. Correspondingly, these nations have been confirmed with the least rates as far as utilization of modern contraception (MC) by adolescents is concerned. According to the Nigeria DHS program, the unmarried sexually active of not less than fifty percent and ninety-eight percent of adolescent girls of married category do not even to bother participate in the effective use of a modern contraceptive (MC) method in Nigeria²⁷. This is worrisome and demand urgent call to rise to action. This issue about

adolescents' Sexual and reproductive health (SRH) is a global concern. However, developing nations are disadvantaged, another recently published data has just confirmed this. In Ethiopia, 68.2 percent and 42.5 percent of married teenage girls and of unmarried sexually lively respectively do not bother to learn or engage in act of using modern contraceptive method and 86.7% of married teenage girls and 66.9% of sexually sensitive of unmarried class do not bother to engage in the use of modern contraceptive method in Tanzania^{28,29}

Since SDGs is a global agenda, this is a formidable and viable intervention pathway that are currently required to be embraced in developing nations most especially in Ethiopia, Tanzania and in most populous nation like Nigeria as fertility rate currently reported among adolescent keep rising with no view of adequate measures²⁵.

Recently, especially in the year 2021, the UNICEF estimated sixteen percent of the entire world population as representative of global adolescents with figure of 1.3 billion. According to the United Nations' reports the age group of adolescents between 10 and 19 is significant in growth and developmental changes experience by them which represents a transition phase that marks a distinct change between childhood and adulthood category^{25,30}. Greater number of adolescents (10–19 years of age) of the world population reportedly live in developing nations according to the newly reported data³¹.

As a result of growing changes attributed to – urbanization, migration, education, and mixing of cultures nations classified as developing categories in the recent years are going through phases of development which are considerably reflecting on the attitude toward sexuality in adolescents^{32,33}. Therefore, providing enabling access and an

effective environment to sexual health care for adolescents will eventually improve contraception status positively will also contribute meaningfully to the life of the adolescents and as well hamper negative implications on the growth and development of the nations of the world ³⁰.

The recent upsurge in the casualties from pregnancy/childbirth intricacies and morbidity rate in Nigeria is a real threat therefore, this is a concern for every stakeholder, principals in the health sector and other relevant organizations as unsafe pregnancy termination has been figured as one of the principal causes responsible for this incidence^{34,35}. Sequel to this, finding a lasting solutions is on the course to provide enabling environment for the adolescents through effective sensitization and other productive pathways towards adolescent sexual reproductive health before engaging in a sexual acts. As a result, the dissemination of information on family planning methods among the teenage groups needs to be supported and as well bring closer to all the concerned groups most especially youths ³⁶. In the reports by the Nigeria DHS program 2013, the adolescent girls between ages 15 and 19 years have been estimated to be twenty-three per cent are either pregnant or mothers having their first child therefore this was confirmed to be leading to the high rate of unsafe pregnancy termination or induced pregnancy termination s reported each year ²⁷.

In a study conducted by Funmito Omolola et al. it was shown that about a quarter (26.80%) of the adolescents were sexually active with mean age at sexual debut of 15.80 in girls and 15.40 years in boys. An average of 18.60% had experienced sexual debut before their 15th birthday, 16.60 % in boys, and 20.20% in girls while the age of debutants engaging in sexual activities occurs between 10 to 15 years³⁸. In another

published article it was revealed that 19% of adolescent girls aged 15–19 years have started bearing children while not less than 30 per cent have given birth at age 19²⁷.

1.2. Statement of the Problem

It has been revealed that adolescents are most likely vulnerable to unwanted pregnancies, therefore, there is a need to specifically identify the causes even with the little information available on contraceptive procedures and their use for the prevention of such unintended pregnancies^{30,36,39}.

According to the released reports in 2016 by UNFPA, 3% of unmarried adolescents are already active sexually.

Out of greater number of adolescent girls that got pregnant in Africa continent with these pregnancies termed unintended, about sixty percent of such pregnancies were vehemently subjected to termination via unsafe pregnancy terminations^{15,36}.

According to the research conducted among the high school students in military barracks, Nigeria by Chimah and his colleagues, the outcome of their findings revealed that only few adolescents have adequate required information as regarding utilization of contraceptive coupled with health education. Sequel to this, the larger group have a tendency of experiencing the adverse effects of engaging in early sexual activity and failure of using contraceptive while engaging in sexual activity as well as its social and economic implications combined⁴⁶.

All the concerned authorities and relevant organizations need to rise and support the promotion of reproductive health education and services for adolescents in Nigeria.

Therefore, as a result of the of the above stated reasons this research tends to embark on this research specifically dedicated to the assessment of the awareness and practice of contraception among adolescent girls (15-19 years) in Ogun State to understand the sexuality, knowledge, accessibility, usage and barriers to contraception as observed and experienced by adolescents and come up with possible solutions.

1.3 Justification of the Study

To combat greater number of pregnancies among the adolescent girls introducing and familiarizing them with the required awareness of contraception is paramount^{47,48}. In their own research independently carried out Ezenwaka and his colleagues are of opinion that that awareness impacts attitudes, while both the ‘awareness and attitudes’ in turn determine effectiveness of practice^{36,39}. Consequently, value-added attitude is a product of acquired and utilized Knowledge will in turn yield good results while contraceptives are dutifully employed therefore the implications of unwanted pregnancies are likely to be resolved as contraceptive use is embraced by the adolescents^{19,39}.

Compared with the married groups, in generally, adolescents are restricted or not probably incorporated into the contraceptive services as laws limited their engagement of its use. Therefore, the adolescents experience limited access and equally find it difficult to procure the contraceptive services owing to financial burdens sometimes compared to the adults that are sometimes seeing legally entitled to the contraceptive services wherever they are available^{1,39,49}.

1.4 Objectives of the research

The general objective of this research is to assess the awareness and practice of contraception among the adolescent girls (15-19 years) in Ogun State.

Specific of Objectives

1. Assess the knowledge of contraception among school adolescents girls (15-19 years) in Ogun State
2. Examine the choice of modern contraceptives among school adolescents girls (15-19 years) in Ogun State of Nigeria
3. Identify factors promoting and limiting the use of contraceptives among school adolescent girls (15-19 years) in Ogun State of Nigeria

1.5 Research Questions

2. What is the level of knowledge of contraceptives among school adolescents girls (15-19 years) in Ogun State?
3. What are trends in the choice of contraceptives among school adolescents girls (15-19 years) in Ogun State?
4. What factors influence school adolescent girls' (15-19 years) use of contraceptives in Ogun State?

1.6 Significance of the Study

The research is in a frontier research topic and will have valuable and lasting impact in various sectors such as Education sector, Health sector, Planning, etc. towards

achieving sustainable solutions as primary focus area. Both indirect and direct advantages are obtainable via effective applications of contraceptives. Such as low abortion rate, prevention of unwanted pregnancy, achieving low rate of mortality and morbidity connected to complications normally report during pregnancy and child births most especially among adolescent girls

It is no longer seen as a new trend that adolescent girls face many issues globally even as there are existing various interventions from both non-governmental (NGOs) and governmental organizations. One of such principal issues is drop-out of the school especially in developing countries. Drop-out of the school has been attributed to unintended/unwanted pregnancy by these adolescent girls (15-19) which sometimes was due to the lack of awareness and contraception practice. Therefore, this research tends to explore more to assess the cause behind the high rate of unintended/unwanted pregnancies among the adolescents. Having known the root cause, then the outcomes are going to be useful for the Ministry of Education on what to be recommended to be included in the curriculum to help curb this act in our society and what to do to improve education of adolescent girls as proposed at the UN meeting that gave birth to 17 Sustainable Development Goals. Furthermore, the anticipated findings are going to be useful to intimate the adolescent girls with useful and helpful information about awareness and suitable practice of contraception. Unwanted pregnancy may be attributed to engaging in unprotected copulation as one of the reasons among the adolescent girls which in turn result to inability to further their research and this could as well lead to high rate of unemployment in the nation as some of these adolescent girls possess no skills.

1.7 Scope of the Study

This study was conducted among Adolescent girls in secondary school between the ages of 15 and 19 in Ogun State. The study was conducted to see how knowledgeable the students are about various methods of modern contraception and also factors promoting and limiting the use of contraceptives among school adolescent girls.

1.8 Limitation of the Study

Data were collected using self report instrument, responses to question may be biased by individual's willingness to self disclose their feelings, selective, recall and their desire to present themselves in a socially desirable way. Despite the above limitations, this study has contributed to understand the measure of knowledge the students have in regards to modern contraceptive usage.

1.9 Definition of Operational Terms

Adolescent: The World Health Organization (WHO) describes adolescent as any person between 10 and 19 years old.

Contraception: It is a birth control by which conception or impregnation is deliberately prevented (Britannica). The concept is used in this research as regard adolescent girls between 15-19 years old.

Reproductive health: Reproductive health has been described as a complete physical, mental and social well-being in complete form and not just a state void of disease or infirmity, regarding to associated matters connected to the reproductive system and to its roles and progressive developments⁵⁶.

An unsafe abortion: Is a procedure of pregnancy termination either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards or both

Maternal mortality: Maternal mortality is defined by the World Health Organization as the death of a woman from pregnancy related causes during pregnancy or within 42 days of pregnancy, expressed as a ratio to 100, 000 live births in the population being studied.

Maternal morbidity: This has been described as a condition or state besides normal pregnancy, labor, and childbirth that negatively affects a woman's health in those periods ^{34,35}.

Contraceptive Methods: It describes artificially designed pathway simultaneously employed by the sexual partners for the prevention of unwanted pregnancy and STDs.

Contraceptive use: This refers to the number of women or their partners currently engaging in the use of at least one of the existing contraceptive methods .

Traditional methods of contraception: These consist of rhythm (such as exercising abstinence, awareness-based fertilized procedures) or act of practicing withdrawal method to prevent the release of sperm into vaginal.

Modern methods of contraception: This method involves sterilization of female and male, use of oral contraceptive pills, utilization of either male or female condoms, adoption of the intra-uterine device (IUD), vaginal barrier methods (including the diaphragm, cervical cap and spermicidal foam, jelly, cream and sponge), the implant method, injectables, the lactational amenorrhea method (LAM), use of emergency

contraception and other modern existing devised methods (e.g vaginal ring., or the use of contraceptive patch)⁵⁹.

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Endnotes

- 1 *Adolescents' contraception continuation in Switzerland: A prospective observational study*. 2017. **Swiss Medical Weekly**, 147, 3940.
<https://doi.org/10.4414/smw.2017.14504>
- 2 “*Adolescent Pregnancy Fact Sheet*.” **Africa Health Organisation**. Last modified March 22, 2019. Accessed November 1, 2022. <https://aho.org/fact-sheets/adolescent-pregnancy-fact-sheet/>.
- 3 Mohammed, S. B., Y. Ya'aba, M. Njoku, M. C. Abarike, K. S. Izebe, M. N. Ezeunala, M. Usoroh, “*Prevalence of HIV among Adolescent Children in Abuja, the Federal Capital Territory, Abuja Nigeria*.” **Open Journal of Epidemiology** 09, no. 04, 2019: 321–328.
- 4 J. Smith, *Improving adolescent access to contraception in sub-Saharan Africa: A review of the evidence*, **African Journal of Reproductive Health**, 24, 2020, 152–164.
- 5 Adedini, Sunday A., Jacob Wale Mobolaji, Matthew Alabi, & Adesegun O. Fatusi. “*Changes in Contraceptive and Sexual Behaviours among Unmarried Young People in Nigeria: Evidence from Nationally Representative Surveys*.” **PLOS ONE** 16, no. 2, 2021.
- 6 Rodić, Ljiljana, & David Wilson. “*Resolving Governance Issues to Achieve Priority Sustainable Development Goals Related to Solid Waste Management in Developing Countries*.” **Sustainability** 9, no. 3, 2017: 404.
- 7 Kantorová, Vladimíra, Mark C. Wheldon, Aisha N. Dasgupta, Philipp Ueffing, & Helena Cruz Castanheira. “*Contraceptive Use and Needs among Adolescent Women Aged 15–19: Regional and Global Estimates and Projections from 1990 to 2030 from a Bayesian Hierarchical Modelling Study*.” **PLOS ONE** 16, no. 3 2021.
- 8 Perehudoff, Katrina, Denis Kibira, Elke Wuyts, Carles Pericas, Joyce Omwoha, Hendrika A. van den Ham, Aukje K. Mantel-Teeuwisse, & Kristien Michielsen. “*A Comparative Human Rights Analysis of Laws and Policies for Adolescent Contraception in Uganda and Kenya*.” **Reproductive Health** 19, no. 1 2022.
- 9 United Nations, *World Fertility and Family Planning 2020*, 2020.
- 10 “*Sustainable Development Goals: United Nations Development Programme*.” **UNDP**. Accessed November 1, 2022. <https://www.undp.org/sustainable-development-goals>.

- 11 Nunes, Filipa Raquel, Fabiane Amaral Neves, Fernanda da Geraledes, & Maria Fernanda Águas Lopes. "Contraception in Adolescents with Intellectual Disability." **The European Journal of Contraception & Reproductive Health Care** 22, no. 6, 2017: 401–406.
- 12 Robbins, Cynthia L., & Mary A. Ott. "Contraception Options and Provision to Adolescents." **Minerva Pediatrics** 69, no. 5, 2017.
- 13 Mathewos, Samuel, & Aleme Mekuria. "Teenage Pregnancy and Its Associated Factors among School Adolescents of Arba Minch Town, Southern Ethiopia." **Ethiopian Journal of Health Sciences** 28, no. 3, 2018: 287.
- 14 Ernawati, Hery, Anni Fithriyatul Mas'udah, Ova Emilia, Lely Lusmilasari, Laily Isroin, & Metti Verawati. "The Use of Contraception and Adolescent Fertility in Indonesia." **Open Access Macedonian Journal of Medical Sciences** 9, no. G, 2021: 168–171.
- 15 I. Ngerageze, *Utilization of contraceptive methods among secondary school female adolescents at a selected secondary school in Rwamagana district, Rwanda*. 2019.
- 16 Mbachu, Chinyere Ojiugo, Ifunanya Clara Agu, Chinonso Obayi, Irene Eze, Nkoli Ezumah, & Obinna Onwujekwe. "Beliefs and Misconceptions about Contraception and Condom Use among Adolescents in South-East Nigeria." **Reproductive Health** 18, no. 1, 2021.
- 17 Bellizzi, Saverio, Giuseppe Pichierri, Leonardo Menchini, Jessica Barry, Giovanni Sotgiu, & Quique Bassat. "The Impact of Underuse of Modern Methods of Contraception among Adolescents with Unintended Pregnancies in 12 Low- and Middle-Income Countries." **Journal of Global Health** 9, no. 2, 2019.
- 18 Deitch, Julianne, & Lindsay Stark. "Adolescent Demand for Contraception and Family Planning Services in Low- and Middle-Income Countries: A Systematic Review." **Global Public Health** 14, no. 9, 2019: 1316–1334.
- 19 J. Birchall, *Early marriage, pregnancy and girl child school dropout, Knowledge, evidence and learning for development*, 2, 2018, 1–15.
- 20 Sobngwi-Tambekou, L. Joëlle, Marthe Tsague-Agnoux, Léopold K. Fezeu, & Flavien Ndonko. "Teenage Childbearing and School Dropout in a Sample of 18,791 Single Mothers in Cameroon." **Reproductive Health** 19, no. 1, 2022.
- 21 Sedlecky, Katarina, & Zoran Stanković. "Contraception for Adolescents after Abortion." **The European Journal of Contraception & Reproductive Health Care** 21, no. 1, 2015: 4–14.

- 22N. Rajoo, *Adolescents, contraception and termination of pregnancy, Obstetrics and Gynaecology Forum*, 28, 2018, 19–22.
- 23Kungu, Wambui, Anne Khasakhala, & Alfred Agwanda. “Use of Long-Acting Reversible Contraception among Adolescents and Young Women in Kenya.” **PLOS ONE** 15, no. 11, 2020.
- 25S. Kapira, Assessing Barriers of Contraceptive Uptake among Adolescent Girls in a Rural District of Malawi, ProQuest Dissertations and Theses, 2021, 67.
- 26de Vargas Nunes Coll, Carolina, Fernanda Ewerling, Franciele Hellwig, & Aluísio Jardim de Barros. “Contraception in Adolescence: The Influence of Parity and Marital Status on Contraceptive Use in 73 Low-and Middle-Income Countries.” **Reproductive Health** 16, no. 1, 2019.
- ²⁷Atchison, Christina Joanne, Emma Mulhern, Saidi Kapiga, Mussa Kelvin Nsanya, Emily E Crawford, Mohammed Mussa, Christian Bottomley, James R Hargreaves, & Aoife Margaret Doyle. “Evaluating the Impact of an Intervention to Increase Uptake of Modern Contraceptives among Adolescent Girls (15–19 Years) in Nigeria, Ethiopia and Tanzania: The Adolescents 360 Quasi-Experimental Study Protocol.” **BMJ Open** 8, no. 5, 2018.
- 27Melesse, Dessalegn Y, Martin K Mutua, Allysha Choudhury, Yohannes D Wado, Cheikh M Faye, Sarah Neal, & Ties Boerma. “Adolescent Sexual and Reproductive Health in Sub-Saharan Africa: Who Is Left behind?” **BMJ Global Health** 5, no. 1, 2020.
- 28National Population Commission (NPC) (Nigeria) & ICF, International: *Nigeria Demographic and Health Survey 2013*. Abuja, Nigeria and Rockville, Maryland, USA: NPC and ICF International, 2014. P203 -232. Accessed November 1, 2022. <http://www.sciepub.com/reference/163552>.
- 29“The DHS Program.” *The DHS Program - Ethiopia: Standard DHS, 2021*. Accessed November 2, 2022. <https://dhsprogram.com/methodology/survey/survey-display-586.cfm>.
- 30“Tanzania Demographic and Health Survey 2015-2016.” *GHDx*. Last modified January 1, 1970. Accessed November 2, 2022. <https://ghdx.healthdata.org/record/tanzania-demographic-and-health-survey-2015-2016>.
- 31Crawford, Emily E., Christina J. Atchison, Yewande P. Ajayi, & Aoife M. Doyle. “Modern Contraceptive Use among Unmarried Girls Aged 15–19 Years in South Western Nigeria: Results from a Cross-Sectional Baseline Survey for the Adolescent 360, A360 Impact Evaluation.” **Reproductive Health** 18, no. 1 2021.

- 32Development, Department for International. “*Evidence on Family Planning Use in Young People of Tanzania.*” *GOV.UK*. GOV.UK, May 15, 2019. Last modified May 15, 2019. Accessed November 2, 2022. <https://www.gov.uk/research-for-development-outputs/evidence-on-family-planning-use-in-young-people-of-tanzania>.
- 33Sabo, Aliyu Sokoto, Lawali Yakubu, Aliyu Alkammawa Luba, Samira L. Ya`u, A. T. Bakare, Muhammad Fatima, Isah M. Zayyanu, & Musa A. Zulkiflu. “*Influence of Socio-Demographic Variables on the Choice of Contraceptives among Women Attending ANC Unit at Specialist Hospital Sokoto, Sokoto State, Nigeria.*” **International Journal of Reproduction, Contraception, Obstetrics and Gynecology** 7, no. 7, 2018: 2565.
- 34Arisukwu, Ogadimma, Chisaa Onyekachi Igbolekwu, Ifunaya Efugha, Joseph Nkemakolam Nwogu, O. Ngozi Osueke, & Eytayo Oyeyipo. “*Knowledge and Perception of Emergency Contraceptives among Adolescent Girls in Imo State, Nigeria.*” **Sexuality & Culture** 24, no. 1, 2019: 273–290.
- 35Olonade, Olawale, Tomike I. Olawande, Oluwatobi Joseph Alabi, & David Imhonopi. “*Maternal Mortality and Maternal Health Care in Nigeria: Implications for Socio-Economic Development.*” **Open Access Macedonian Journal of Medical Sciences** 7, no. 5, 2019: 849–855.
- 36McCurdy, Rebekah J, Xuezhi Jiang, & Peter F Schnatz. “*Long-Acting Reversible Contraception in Adolescents in Sub-Saharan Africa: Evidence from Demographic and Health Surveys.*” **The European Journal of Contraception & Reproductive Health Care** 23, no. 5, 2018: 357–364.
- 37U. Ezenwaka, C. Mbachu, C. Okeke, I. Agu, N. Ezumah, & O. Onwujekwe, *Socio-demographic and economic determinants of awareness and use of contraceptives among adolescents in Ebonyi State, South-east, Nigeria*, **African Journal of Reproductive Health**, 25, 2021, 22.
- 38Alubo, Ogoh. “*Adolescent Reproductive Health Practices in Nigeria.*” **African Journal of Reproductive Health** 5, no. 3, 2001: 109.
- 39Funmito Omolola, Fehintola, Fehintola Akintunde Olusegun, Ogunlaja Olumuyiwa A, Akinola Samuel Egun, Awotunde Timothy Olufemi, Ogunlaja Idowu Paulin, & Ogundele Olorunfemi Akinbode. “*Prevalence and Predictors of Early Sexual Debut among Adolescents in Ogbomoso, Nigeria.*” **American Journal of Public Health Research** 6, no. 3, 2018: 148–154.
- 40Ezenwaka, Uchenna, Chinyere Mbachu, Nkoli Ezumah, Irene Eze, Chibuike Agu, Ifunanya Agu, & Obinna Onwujekwe. “*Exploring Factors Constraining Utilization of Contraceptive Services among Adolescents in Southeast Nigeria:*

An Application of the Socio-Ecological Model.” **BMC Public Health** 20, no. 1 2020.

- 41Ajayi, Anthony Idowu, Sally Atieno Odunga, Clement Oduor, Ramatou Ouedraogo, Boniface Ayanbekongshie Ushie, & Yohannes Dibaba Wado. “*I Was Tricked’: Understanding Reasons for Unintended Pregnancy among Sexually Active Adolescent Girls.*” **Reproductive Health** 18, no. 1, 2021.
- 42Li, Zhihui, George Patton, Farnaz Sabet, Zhiying Zhou, S. V. Subramanian, & Chunling Lu. “*Contraceptive Use in Adolescent Girls and Adult Women in Low- and Middle-Income Countries.*” **JAMA Network Open** 3, no. 2, 2020.
- 43Adedini, Sunday A., Stella Babalola, Charity Ibeawuchi, Olukunle Omotoso, Akinsewa Akiode, & Mojisola Odeku. “*Role of Religious Leaders in Promoting Contraceptive Use in Nigeria: Evidence from the Nigerian Urban Reproductive Health Initiative.*” **Global Health: Science and Practice** 6, no. 3, 2018: 500–514.
- 44G. K. Nalwadda, *Contraceptive use among young people in Uganda: Exploration of obstacles, enablers, and quality of services, Makerere University College of Health Sciences*, 2012.
- 45“*Universal Access to Reproductive Health: Progress and Challenges.*” **United Nations Population Fund**. Accessed November 2, 2022.
<https://www.unfpa.org/publications/universal-access-reproductive-health-progress-and-challenges>.
- 46E. A. Envuladu, V. De Kwaak Anke, P. Zwanikken, & A. I. Zoakah, *Sexual and Reproductive Health Challenges of Adolescent Males and Females in some Communities of Plateau State Nigeria*, **International Journal of Psychology and Behavioral Sciences**, 7, 2017, 55–60.
- 47Nnebue, CC, UC Chimah, TO Lawoyin, & AL Ilika. “*Contraceptive Knowledge and Practice among Senior Secondary Schools Students in Military Barracks in Nigeria.*” **Nigerian Journal of Clinical Practice** 19, no. 2, 2016: 182.
- 48Ott, A. Mary, S. Gina Sucato, K. Paula Braverman, P. WilliamAdelman, M. Elizabeth Alderman, C. Cora Breuner, A. David Levine, V. Arik Marcell, & F.O Rebecca’Brien. “*Contraception for Adolescents.*” **Pediatrics** 134, no. 4, 2014.
- 49Johnson, Ofonime, & Ikobong Ekong. “*Knowledge, Attitude and Practice of Family Planning among Women in a Rural Community in Southern Nigeria.*” **British Journal of Medicine and Medical Research** 12, no. 2, 2016: 1–8.
- 50Bijlmakers, Leon, Billie de Haas, & Anny Peters. “*The Political Dimension of Sexual Rights.*” **Reproductive Health** 15, no. 1, 2018.

- 51 Barral, L. Romina, Brenda Cartujano, Jaime Perales, Mariana Ramirez, D. John Cowden, E. Maria Trent, Megha Ramaswamy, & Sarah Finocchiaro Kessler. "Knowledge, Beliefs, and Attitudes about Contraception among Rural Latino Adolescents and Young Adults." **The Journal of Rural Health** 36, no. 1, 2019: 38–47.
- 52 Dombola, Gift Mtawali, Wanangwa Chimwaza Manda, & Effie Chipeta. "Factors Influencing Contraceptive Decision Making and Use among Young Adolescents in Urban Lilongwe, Malawi: A Qualitative Study." **Reproductive Health** 18, no. 1, 2021.
- 53 Burke, M. Susan "Texting as a Strategy to Increase Contraception Use Compliance in Adolescent Females." **Journal of Pediatric Nursing** 43, 2018: 134–135.
- 54 Tarek Tawfik Amin Follow. *Research Question, Criteria, Formulation, and Relation to Research De...* Accessed November 2, 2022.
<https://www.slideshare.net/TarekTawfikAmin/research-question-criteria-formulation-and-relation-to-research-designs>.
- 55 Chandra-Mouli, Venkatraman, S. Pooja Parameshwar, Matti Parry, Catherine Lane, Gwyn Hainsworth, Sylvia Wong, Lindsay Menard-Freeman, "A Never-before Opportunity to Strengthen Investment and Action on Adolescent Contraception, and What We Must Do to Make Full Use of It." **Reproductive Health** 14, no. 1 2017.
- 56 Chandra-Mouli, Venkatraman, Marina Plesons, Emily Sullivan, Lianne Gonsalves, & Lale Say. "38.8 Million Additional Modern Contraceptive Users: This, in Fact, Is 'a Never-before Opportunity to Strengthen Investment and Action on Adolescent Contraception.'" **Reproductive Health** 15, no. 1, 2018.
- 57 Batwala, VK, F Nuwaha, EM Mulogo, F Bagenda, F Bajunirwe, & JB Mirembe. "Contraceptive Use among in and out-of School Adolescents in Rural Southwest Uganda." **East African Medical Journal** 83, no. 1, 2006.
- 58 Munakampe, Margarate Nzala, Joseph Mumba Zulu, & Charles Michelo. "Contraception and Abortion Knowledge, Attitudes and Practices among Adolescents from Low and Middle-Income Countries: A Systematic Review." **BMC Health Services Research** 18, no. 1, 2018.
- 59 U. Ezekoma, *The High Rate of Maternal Mortality and Morbidity in Nigeria: A radical call to save Nigerian mothers. To the Federal Ministry of Health, Federal Republic of Nigeria The States' Commissioner for Health*, 2020.

Chapter Two

Literature Review

2.1 Conceptual Review

High Prevalence of Unintended Pregnancy in Adolescent

Young girls who are in their adolescent stage encounter a series of Sexual and reproductive health (SRH) needs which often result in dilemmas as a result of limited awareness regarding individual, social, environmental or cultural factors^{39,60-62}. In a paper published by Eli some social norms are reported to be responsible for gender inequalities⁶¹. In order to adequately cater for the adolescent girl in their social, health, education, UNDP postulates that an institution must be set up for effective sensitization in order to help them understand the key issues need to address in their adolescent stage as to successfully overcome many imbalances that frustrate their self-confidence¹⁰.

In the same line of argument, Darroch asserts that from the cumulative amount of pregnancy reported in developing countries, unwanted pregnancies by the adolescents has 50% while 25% halted into either safe or unsafe pregnancy termination exercise⁶³. World wide, unsafe abortion or childbirth complications has been said to be the main cause for the high rate of death among the adolescent girls and the higher percentage of this is found in developing regions^{63,64}. To contract this menace, it is important that sufficient awareness about Sexual and reproductive health (SRH) services be available making them accessible by the adolescents^{60,61}.

According to the previous reports about childbearing with utilization of contraceptive, over 840,000,000 women of childbearing group engaged in the using of one or more

of the contraceptive methods while it 270, 000,000 do not have access to it let alone engaging in the use of any contraceptive methods ^{7,65}. Furthermore 60% of unwanted pregnancies in Africa by young girls are terminated and has resulted to high proportion of deaths because unsafe pregnancy termination methods were employed ⁷. With these various publications, it has been established that adolescents with accidental pregnancy might leave scar of different outcomes on themselves, the families, society or due to the impede economic growth of their nation encourage the the use of unsafe pregnancy termination in existing and compatible contraceptive methods for the prevention of alarming of unwanted pregnancy ^{18,19,66-68}. When adolescents between age 15 and 19 are pregnant, they are vulnerable ⁶⁸ and the implication tend to contrive poverty, poor education setting and unemployment in their respective resident nations^{18,66}.

2.1.1 Adolescent Sexuality and Contraceptive Use Issues: A global concern

UN SDGs has a timeframe target of five years to reduce less than seventy deaths of casualties from pregnancy/childbirth intricacies per 100 000 live births. The 2030 sustainable agenda is to lessen the casualties from pregnancy/childbirth intricacies to nothing lesser than 20 deaths per 1000 live births according to the published articles ^{6,9,10}. In order to make this possible with the set timeframe, adolescents less than twenty years are declared to be the basic focus as noted that the risks faced by both adolescent mothers and infants are high. According to the documentation, adolescent pregnancy is a way riskier than adult women pregnancies leading to neonatal mortality, disabilities and cases of low birth and deaths ^{9,10,37}. Efficient workable

policy with swift actions are really needed to provide for modern contraception among the adolescents will result into a cut down of accidental pregnancy. The age group has a yearly figure of six million can be cut down to two million fewer unintended births while abortion was cast to be about three million reduction, and low record of five thousand maternal deaths ⁵⁷. In some nations, a pregnant adolescent will be pushed to early marriage, whether or not the pregnancy was a mistake^{13,69}. This most times alter the life course of the girl in question. Early childbearing has a long term effects on the mother's formal education, career and health; there is also a push into a poor state of living and furthermore affect economics of the nation where the victims are resident. For community where there are many early childbearing, there is reduction on the chances of achieving gender equality ^{50,54,70}

The 2030 sustainable agenda is a blue print for the use of data disaggregated along critical social dimensions to point out sub-groups of people who are being left behind and as well care towards their well-beings. For family planning indicators, two factors are used: age and marriage status. Gaps in awareness regarding these critical dimensions lead to gaps in service provision, often leaving the most vulnerable and marginalized young women and girls without access to critical reproductive health-care services. Previous research has included comparative analyses based on data from a single survey programme for nations and periods with available data ^{60,71,72} or only provided estimates for adolescents who were married or in a union ^{38,69,73}. As part of the project, Adding It Up: Costs and Benefits of Meeting the Contraceptive Needs of Adolescents, the Guttmacher Institute prepared estimates of contraceptive use and needs in 2016 among adolescents aged 15–19 living in the developing regions ^{63,74,75}.

Besides, the Guttmacher Institute produced some future samples of adolescent contraceptive use, cost and impact in developing regions between 2020 and 2030⁷⁶. Both projects illustrated estimates for one year or projections according to a specific scenario; results were reported only for specific nation groupings based on demographic/geographic region or national income per capital.

2.1.2 Concerns about Adolescents' pregnancy in Nigeria

World Health Organization (WHO) asserts that there are about 20% global maternal deaths that occurred in Nigeria and this equal to over 600,000 of mother deaths and around 900,000 maternal near-miss cases between year 2005 to 2015, respectively. A Nigerian mother has a 1-in-22 lifetime risk of dying within the months of pregnancy, delivery or postpartum/post-abortion. This is in contrast with a minimum lifetime risk of 1 in 4900 in many of the developed nations. The population in Nigeria with many women, children and adolescent (WCA) morbidity and mortality imply that the progress of Nigeria as a nation can change the growth in Africa and even worldwide⁷⁷. Researches from different fractions of Nigeria reveal there is a massive sexual exercise among the singles which a notable decreasing age of debut, unsafe copulation with numerous partners³⁸.

Another survey postulate that in a nation like Nigeria, they have major concern about adolescent reproductive and sexual health as over 30 million youngster make up the one-third of their population. Among many reason for unwanted pregnancy is random copulation which are eventually aborted^{15,42}. Regrettably, since pregnancy termination in Nigeria is still illegal (except when to save the mother's life), many of pregnancy

termination exercise are done in risky circumstances which endanger the lives of the mother ^{45,78}. Similarly, it is calculated that among to mature men and women, there are 70 percent untimely deaths in Nigeria and many of which are caused by the inexperience and lack of awareness people sustain when they are young ^{30,79}. The concerns and outcomes of unintentional pregnancy in adolescents have been stated under section 1.5 above.

2.1.3 Adolescents' awareness of contraceptive use in Africa

There is limited record of the awareness and attitude about contraceptive among adolescents in the third world countries, especially, Africa and more precisely from systematic review perspective and this is the purpose of this research. An online literature search of the studies on the topic was conducted through PubMed, and Google Scholar, considering a period between year 2015 and 2021. The search strategy used; “awareness and attitude towards contraceptive use among adolescents in Africa”, which was sorted by date. The search resulted in 14,468 journal articles: 14,300 from Google Scholar, and 168 from PubMed but only 27 studies qualified for inclusion ⁸⁰. The outcome demonstrate that there is inadequate awareness of contraception, however, this varies by age, education, marital status and geographical factor. Many of the adolescents understand that there is an emergency contraception and traditional methods which can be used. Some of these include abstinence, lactational amenorrhea, and coitus interruptus. Despite this, many do not use contraception because to limited access and lack of information on the side effects.

Another factor that influences this is religious beliefs, cultures and environmental influences ⁸⁰.

A research in the Democratic Republic of Congo also noted that 90% of the players had adequate awareness of a given contraceptive method ⁸¹. Moreover, in Ethiopia, only about 50% had sufficient awareness of contraception ⁸². Other related explanations were documented in the same country with just a minor increase in the awareness of contraception ⁸². Thus, adolescents from poor homes have a bigger unmet need for contraception resulting into a bigger problem for undesirable teenage pregnancies ¹⁵. Nonetheless, this desire is being lessened over the years ³⁸. These researches have been carried out in various regions of Arica. Similarly, the differences in the understanding of contraceptive use are clearly spelt out when rural and urban areas are compared; urban areas have a narrowly greater level of contraceptive use ⁵. Another author affirmed that adolescents who find time to listen to radios programs and watch television will be opened to knowledge and the awareness of contraception. This, having opportunities to have such awareness from the parents, hospital workers, journalist and broadcasters will definitely bring advancement ²⁵. The poor use of contraception in some African nations was linked to the contrary perceptions and poor backing from cultural point of views, peers, parents and teachers. This happens when teachers, religious leaders, guardians or parents do not have sufficient information about sexual discourse and cannot engage in it with their children. However, certain researches noted a significant amount of awareness of contraception among adolescents, especially the emergency or traditional contraception and traditional methods ⁸⁰. Regardless, youngsters with different awareness and understanding of

Sexual and reproductive health (SRH) can be informed through trainings in some aspect of sexual and reproductive health. For the training to make an enduring effect, they have to be positive using age appropriate and acceptable approaches to adolescent ⁵⁵.

A survey was conducted in Sub-Saharan Africa on the awareness of contraception and familiarity, different methods that were used posit that the adolescents who engage copulation are aware of the long-acting reversible contraceptives³⁵. On the contrary, non-pregnant girls were more aware than the pregnant ones in the use of contraceptives. Unfortunately, in spite of the degree of awareness of contraception, there was no substantial connection with their usage ³³. In another Africa nation, Kenya, a research was carried out and it indicated that there was a connection between the state of education and the use of contemporary contraceptive procedures as well as the use of long-acting reversible contraceptive ⁸³. In 2020, a research in 29 African nations noted that adolescents aged 15-19 normally have insufficient awareness of ovulation, therefore can not use the Gregorian calendar to calculate the monthly and escape unwanted pregnancy, but the older women can do this. The research proposes modification in the passing of fertility awareness and enacting community convergence where adolescents can rub minds and share their experiences ⁸⁴. Another research carried out in the Sub-Saharan Africa region reported that the level of adolescent girl's education influences contraceptive use ⁸¹.

2.1.4 Adolescents' awareness of contraceptive use in Nigeria

Over 20 million young people do not have access to contemporary pregnancy prevention procedures even though there is a high degree of information about pregnancy prevention. Research in Nigeria established that 85.6 % of adolescents have awareness about the utilization of urgent pregnancy prevention. This term refers to the utilization of a device or procedure to prevent conception as a result of sexual activity. The same research could not also indicate a connection between the degrees of awareness they sustain about pregnancy prevention they are known to them. Crawford et.al noted there is an advancement in the status of awareness about the utilization of devices or procedure to prevent conception as a result of sexual activity among youngsters among the South west people of Nigeria^{25,30}. But it was reported that the adolescent who are active sexually had bigger level of awareness more those who were less sexually active⁸⁵.

Another research yet in Nigeria highlighted that young boys had more awareness in the area of pregnancy prevention far more than the young girls. The exact findings state that 61.5% of girls who partook in the research had substantial awareness of contraceptives. This was connected to having adequate awareness in sex education through provision of outreach services. Also the research could not establish a substantial difference in adolescent girls' age categories and pregnancy preventive utilization^{36,39}. Like his research which revealed a high level of awareness for contraceptive utilization, another survey was conducted in Africa, in Tanzania precisely and the result show agree with Ezenwaka's. However, partakers registered a low level utilization of pregnancy prevention services⁸⁶. A research carried out

among Abdulahi et.al., 2020 also did a research on African nations In 2020 they reported young girls between aged 15-19 do have awareness of ovulation and can utilization the Gregorian calendar to calculate their period of menstruation and ovulation, this will help them to avoid unintended pregnancy⁸⁷. The research recommends improvement in the dissemination of fertility awareness and providing community-based forums for the Young girl to share their experiences ⁸⁴. Some other studies were carried out in Africa and they conclude that how educated women are will determine their exposure which will in turn affect their awareness of contraceptive utilization^{38,81}.

2.1.5 Adolescents' disposition towards contraceptive utilization

Adolescents stage is an important group in any society, but due to their demographic description, many them go through this crucial stage having an insignificant access to SRH, Sexual & reproductive healthservices ^{83,85}. The disposition of young girls towards pregnancy prevention is not well catalogued. However, a few studies on young girls and pregnancy prevention indicate that young girls have negative disposition towards modern pregnancy prevention due to the supposed outcome they have been informed time involved¹⁵. Other restricting components in connection to their disposition embarrassment, humiliation and the fear and if being castigated by health workers ³⁸. A study conducted in Nigeria reveal that young girls largely have a favorable disposition about the utilization of urgent pregnancy prevention. It was documented that more than half of the partakers in the research accepted that they could utilize contraceptive when necessary. The research also recorded that young

girls believed that using contraceptive pills connotes that one is wayward^{85,88}. Emergency pregnancy preventive pills are swallowed by women within the 72 hours after an unguarded copulation has occurred, the purpose of this is to reduce the chances of becoming pregnant⁶². Nonetheless emergency pregnancy preventive pill is not the best when planning for a family, it can also be beneficial if it happened that the couple have coitus without condoms, this will reduce the chances of unwanted pregnancies. Urgent pregnancy prevention is most helpful when or where there is breakage in condom^{89,90}. Some young girls did not believe that married women should have anything to do with urgent pregnancy prevention, they evaluated the utilization of urgent pregnancy prevention to be a sin. Also, the disposition of parents about pregnancy preventives utilization was catalogued as a substantial component that differentiated young girls' utilization of pregnancy preventives^{50,85}. There are many evidences that are scattered all over the researches about how family planning could inform people's decision to choose pregnancy preventives. A kind of pregnancy prevention which has to do with controlling surplus growth in population. The government in many nations through the appropriate and established agencies encourage the utilization of pregnancy preventives through channels like the media house and broadcasting corporations⁹¹. Apart from the concern about population, pregnancy prevention can be of benefits to young girls and society by preventing unintended pregnancy, lessening the casualties from pregnancy/childbirth intricacies and morbidity and also lessening the sweep of STIs. Mass media and broadcasting corporations play a key role in bringing this awareness to the public⁹¹. Therefore, they embark on various educative programs for effective sensitization and updates, the mass

media will bring necessary information to society and also impact their disposition by increasing the engagement or involvement in family planning which will in turn affect our society positively.

2.1.6 Young girls Sexual behaviour and utilization of contraception

Sexual activities and the employment of contraceptives do not transpire holistically, they are connected to a lot of components at individual, family, community, and nation levels. These components at different levels will include the level of education and involvement in religion, culture and environment³⁹. One of the key areas of good health is allowing young girls to discern and gain control over their reproduction⁹². Availability of medical services is necessary as this will in turn improve access to pregnancy prevention⁶¹. Therefore, this will be a practical way to improve young girls' control over their reproductive ability instead of allowing them to be regulated by it. Nigerian youngsters between the ages of 10 and 24 are susceptible to danger because of poor awareness of sexual and reproductive health (SRH), this results in accidental pregnancy, unsafe pregnancy termination, and STIs like HIV/AIDS. Nigeria has a lot of youngster with health crises with SRH as a significant contributor⁹¹. Among other countries and of the world, Nigeria has many HIV positive people and youngsters and this account for about a third of all the people who are HIV positive⁹³. Adolescents and youngsters (AYP) also add up considerably to Nigeria's high casualties from pregnancy/childbirth intricacies burden which makes the 2nd highest in then world^{5,93}. Almost a fifth of Nigerian young girls will have started childbearing and they bear bigger risks of maternal complications as against older women⁶³. Unsafe

pregnancy termination renders considerably to Nigeria's high casualties from pregnancy/childbirth intricacies burden¹⁵. Nigeria's abortion rate of 36:1000 women between ages 15–49 is greater than the regular Africa's average of 28:1000⁹⁴. Many young women also make considerable contributions to this due to high rates of unsafe pregnancy termination and complications with an unwanted pregnancy as a driving component^{33,38}. Exposed copulation is the primary behavioural component that lead to STDs like HIV and unwanted pregnancy. Many researches have recorded poor rates of utilization of condoms as well as other forms of contemporary pregnancy prevention among youngsters in Nigeria^{5,39,42}. Apart from unprotected sex, there are some other dangerous sexual deportment: early sexual debut and many sexual partners. These also add to poor SRH results. Many component are associated with adolescent low contraceptive behaviour which include poor medical attention. Other components include low response form health workers and structural components like social factors and financial discrepancy^{5,38}. Some research activities argue that singles are at a higher risk of having unsatisfied need for pregnancy prevention than the older population due to social pressure, accessibility problems from health worker's prejudice and what have you^{23,35}. The unfavorable result from unsatisfied need among youngsters such as unintended pregnancies, casualties from pregnancy/childbirth intricacies and sexually transmitted infections which include HIV/AIDS^{5,94,95}. In order tackle this issue of HIV, mothers and youngsters' health Nigeria has made SRH policy in the last twenty years, but these have not been functional. Ina study carried out by Adedini and others, he confirmed that, Nigeria as many youngsters with health problems and SRH is problem. Adedini's research also reveal that risky sexual

deportment was on the high side among young females compared to make, but they noticed that it was not applicable with those who have multiple sexual partnership. This shows that gender is a factor when it comes SRH and consequence. This study implies that other policies that were made before which focus SRH were not functional, accordingly, they suggest that subsequent policies should be engineered to solve the sexual need of young ones in Nigeria ^{5,38,39}.

2.1.7 Influence of socio-demographics on adoption of Contraceptives

The setting of Nigeria: location, norms, religion and tribes where the north has Hausa/Fulani, and the West, the Yoruba and the east has the Igbo, this is one great factor that will affect people especially women. There are many tribal components like the attitude of people toward going to the hospital, this will in turn, affect the overall health productivity^{27,32,79}. Worldwide, annually, about 350,000 females die while around fifty million endure serious sickness and complications from pregnancy. This has made Nigeria to be among the six countries that make up the 50% mothers' death every year. Young girls are exposed to different lifestyles as a result of their sexual life, this can be a barrier to living a healthy and profitable life ⁹⁶. In some parts of Africa, it has been observed that a significant proportion of young girls are sexually active by their mid-teens. Although sex before marriage is not encouraged in most cultural settings in Nigeria ³³. Nigeria has one of the largest populations of adolescent girls in the world and some of them are exposed to unwanted pregnancy. The Demographic and Health Survey in Nigeria shows that 19% of women age 15-19 had already begun childbearing and 30% of young girls aged 15-19 have had a live birth by age 19 ^{27,30}.

In addition to social exclusion from family and peers, adolescent girls are more likely to experience serious pregnancy-related complications or death during childbirth. In addition to teenage pregnancy and its complications, sexual risk taking among young girls in developing nations such as Nigeria has the potential to fundamentally shape the burden and course of HIV epidemic and other STIs^{3,5}. The high level of unprotected copulation among this sub-group constitutes important public health concern in developing nations⁴. According to W.H.O, Nigeria had the second highest number of annual maternal deaths in the world in 2010 and bestowed fourteen per cent of the mothers' casualties around the globe. Nigeria has casualties from pregnancy/childbirth intricacies and the casualties from pregnancy/childbirth intricacies estimates are not the same judging by Nigerian region: southwest (where Ogun is located) has poorest figures of avoidance casualties of parents⁹⁷. The main cause established was that those who could not receive information and thereby could not utilize contraceptives among the young girls were the ones who made up the number of casualties. Many young girls do not know that a woman could get pregnant whether for the first or second time a woman has unprotected sex. Young girls getting pregnant add up to the increase in the number of mother and baby deaths. This is because many of the girls do not prepare for pregnancy mentally and physically. Lacking the knowledge and using pregnancy prevention pills can be traced to a lack of adequate medical facilities where contraceptives can be dispensed⁶³. Also, there is a temperamental issue that also adds up to it. The fear of confronting the male counterpart responsible for the pregnancy; lacking adequate awareness necessary to make the right decision also affects the utilization of contraceptives^{32,38}.

Productive contraceptive utilization by youngsters will make it possible for them to develop into responsible adults in the future and be better careers life in all aspects of life ⁴⁶. Regardless, youngsters have a lot of challenges in having contraceptive services. The sexual and reproductive department of young girls has not been properly investigated in South-West Nigeria and only some scholars have publicized authentic articles on the theme.

Few of the publications reveal discrepancies in the awareness and utilization of contraceptives among youngsters, these discrepancies include the demographical and socio-economic aspects as indicated in Edo State and other West African countries^{32,38,43,67,98,99}. Despite the fact there is advancement in the awareness of modern pregnancy prevention, many African countries' youngsters do not take modern contraceptives and this leads to unwanted pregnancy that may in turn lead to drop-out-school or negative implication on the economy as this tends to increase the rate of unemployment^{13,18,19,23}. There are discrepancies in the accessibility among youngsters in third-world nations in comparison with developed countries. For example, about 22 per cent of youngsters between ages 15 and 19 in Nigeria were said to be using contraceptives before they have copulation, whereas in developed countries like the USA 39 per cent ^{100,101}. Poor MC also add up to an increased number of girls getting pregnant and the result of this affects their health and sometimes may cause mother and child's death. Employing Family planning will help a lot in this aspect; fighting gender discrimination so that both males and females have access to a good education will also be a contributing factor ^{23,62}.

Although the world is about 7.3 billion and this has been projected to clock 9.7 billion in 2050, and 11.2 billion in 2100, when this is compared with third world countries, it is clear that UN member countries have a practical proposal for family planning, nevertheless, many Africa nations remain reproductivewith insufficient plan^{102,103}.

Young girls' age, education and socio-economic features were spelt out as the parts of the major characteristics that determine their utilization of contraceptives. As adolescence is seen as a new phase of growth to the adolescents, they tend to be experimenting with a lot of things. In their bid for sexual activity, exploration considers one of their explorations and is bound to involve taking the risk as they are new to this phase with lack knowledge^{19,33}. In this phase Adolescent sexual activity is viewed by many as problem department since it departs from what is socially acceptable for girls in their age. The likelihood that young girls will engage in sexual activity, utilise contraceptives or become parents is influenced by a range of attitudes and deportments³³.

Fertility decline procedures focus on making the larger population enjoy the benefit of poverty alleviation and improving the standard of living^{78,104}. In Nigeria, it is postulated that there will be a deduction in childbearing for every woman. It is postulated that this will have about thirteen per cent advancements in per capita income within two decades³⁹. Educated Nigerian women will easily decide on pregnancy prevention to utilise compared to others who are of the lower class or uneducated^{5,42,104}. Put differently, the choice of family planning is projected to be more if one of the couples is educated, even if it is just primary or secondary

education²³. Nevertheless, the analysis established that years of existence and academic qualifications are factors that affect how people utilise or choose contraceptives as a woman or for family planning. The result of this analysis also shows that the career of the individual is a responsible factor in the choice and use of contraceptives. In the analysis, the respondent who was students by occupation had a higher level of employing contraceptive, 129 people among 352 whereas white-collar workers hardly use pregnancy preventative pills³².

2.8.1 Contraceptive Method Employed by Adolescent Girls

Contraceptive prevalence is a key to improved reproductive health and environmental health, and also to demographic and economic development. The heightened demand for effective family planning services for safeguarding reproductive health of women and her children clearly asks for a multilevel model approach so that available contraceptive technology is disseminated to the user in a manner that it is understood and at the same time it is also available to the user^{32,57}. Family planning is a pillar of safe motherhood and is now seen as a human right. It is a cost-effective method of reducing maternal morbidity and mortality³⁵. Contraceptive methods have had a considerable positive impact on maternal and infant health and population growth. It is however unfortunate that unwanted pregnancies and unsafe terminations of pregnancy still occur in large numbers⁶⁸.

Unintended pregnancy predisposes women to several risk component such as unsafe pregnancy termination, maternal death, malnutrition, mental illness and vertical transmission of HIV to children⁶⁸. It increases stress levels, impacts negatively on women's quality of life, and threatens economic status of families^{18,19}. One in ten

pregnancies ends in an unsafe pregnancy termination with Asia, Africa and Latin America accounting for the highest numbers. Each year, 19 million pregnancy terminations are carried out under unsanitary or medically unfit conditions resulting in some over seventy thousand death records¹⁰⁵. Maternal death is practically nonexistent in developed nations. Primarily due to poverty and gender inequity in reproductive health matters there is death of one woman every minute in developing nations due to pregnancy related complications^{34,106}.

Adolescents at greater risk of unintended pregnancy include those who are living in poverty, with low education and fewer employment opportunities, and marginalized populations. Pregnancy itself is an important opportunity to counsel on future contraceptive plans, as rapid repeat pregnancy is common among adolescent mothers¹⁹. The Centers for Disease Control (CDC) Medical Eligibility Criteria for Contraceptive utilization (MEC) provides guidance on post-partum contraceptive options¹⁰⁷.

Current contraceptive options include condoms, combined oral contraceptive pills (OCPs), progestogen-only contraceptive pills (POPs), progestogen injection (Depo-Provera), copper intrauterine devices (IUDs), levonorgestrel intrauterine systems and progestogen implants and the emergency contraceptive pill (ECP)⁹⁰.

The pricing and availability of each method differs around the world, condoms are relatively inefficient at pregnancy prevention, with a 13% typical utilization failure rate^{95,108}.

LARC methods can be removed whenever a patient no longer wishes to have the device, and fertility will resume however it has been established that LARCs are

under-utilised, though efficacious and acceptable for utilization in young girls; this will enable adolescent to be on the right track on suitability and ability to choose the suitable option among the contraceptive methods for efficient utilisation ¹⁰⁹⁻¹¹¹. Currently most the benefits of a proactive model avoid many of the problems related to service access and/or when the service provided is preventative ¹¹².

The majority of contraceptive methods are preventative, requiring utilization prior to sexual activity. Condoms are utilized at the moment of sexual activity, and the copper IUD can be utilized within 5 days of sexual activity to prevent pregnancy. Pregnancy prevention is suited to a model of proactive provision, particularly in the adolescent population. Adolescent access to pregnancy prevention in the current model is not adequate, due to barriers such as time, cost and stigma ^{90,111}.

Poor contraceptive counselling and lack of awareness are also barriers to adolescent contraceptive access ^{30,60,91} and proactive pregnancy prevention provision could address some of these barriers. Furthermore, the universal approach (where all adolescents were offered services regardless of need) could reduce stigma, as adolescents would not have to identify themselves as needing pregnancy prevention. These component, compromised access in a reactive system and a preventative service, make the proactive provision of pregnancy prevention a suitable model to consider ^{15,36,38}.

Unintended pregnancy has four potential short-term outcomes: pregnancy termination, miscarriage, stillbirth or live birth. If a pregnancy is carried to term and live birth is the outcome, the baby can be adopted or raised by the biological mother. Raising a child has a significant impact on the time, freedom, future education

opportunities and finances of an individual ^{18,19}. When pregnancies are unintended, the extent of the ability of individuals to determine their own fate is likely to be reduced. Proactively providing contraception could, therefore, increase the autonomy of young women by reducing their risk of unintended pregnancy, to this extent, the ability to decide their own fate, and plan their future with or without a child to raise ¹¹³.

In Nigeria, the proportion of adolescents who have begun childbearing increases with age, from 2% at 15 years to 37% at 19 years ^{79,114}. Early pregnancies, both planned and unwanted, among adolescents constitutes a serious problem. unwanted pregnancies among adolescents are not only detrimental to their health but also obstructs the socio-economic development ^{67,113}. Most victims of unwanted pregnancy are at a higher risk of educational disruption, early marriage with more children at shorter intervals, future unemployment leading to low income and poor living standards ^{14,18}. Access to media is also important towards contraceptive utilization ⁹¹. Whereas, adolescents who do not experience unwanted pregnancy are more likely to further their education, become involved in the nation's workforce and have healthier life ¹⁸.

Poor awareness and inconsistent/incorrect utilization of contraceptives contribute to high rate of unwanted pregnancies ^{18,30,40}. Global, regional and national reports reveal that adolescents have the lowest contraceptive prevalence rate when disaggregated by age ⁸³. However, regional variations exist as 93% of adolescents in a developed nation reported using modern contraceptives in their last sexual encounter compared to 48.7% of adolescents in a developing nation ^{115,116}. The latter figure

corresponds with findings from studies in Nigeria that reported low contraceptive prevalence rates among youngsters ^{42,104}.

In most Western countries, the median age of first intercourse is around 17 years. By age 18, 60% of females will have had copulation and by age 20 years almost 80%. Many have had more than one partner ¹¹⁷. Adolescents have the lowest level of contraceptive awareness and utilization ¹⁰⁴. Initiation of sexual activity while they lack adequate awareness and skills to protect themselves places adolescents at higher risk of unwanted pregnancy, unsafe pregnancy termination, and STIs ^{5,35,74}.

Although there appears to be an increase in contraceptive utilization at first intercourse, many adolescents still do not utilize any method of pregnancy prevention at first intercourse or do not continue to utilize pregnancy prevention consistently ¹¹⁸.

Utilization of contraception varies widely between and within regions, illustrating that while there are clear regional patterns, nation-level component, including the enabling environment, promotion of and access to family planning services, and community acceptability of modern pregnancy prevention are important determinants of modern contraceptive utilization ^{30,93}. The most commonly utilized method of pregnancy prevention at first intercourse is the male condom, which is important from the STI prevention perspective but is less reliable as a contraceptive method due to typical utilization failure rates that are considerably higher than those seen with other contraceptive methods ⁹⁰. According to the report presented by the WHO some major key characteristic components to attain quality of care in family planning were identified. The identified characteristic components in family planning (FP) are based

on methods, choice, privacy, confidentiality, cultural and religious beliefs of the young woman effectiveness of the different contraceptive methods, benefits of the different contraceptive methods, competent trained health care workers; and relevant services¹¹⁹.

A research has shown that half of the pregnancy termination -related deaths in sub-Saharan Africa occur among adolescent girls and young adult women (aged 10–24)¹²⁰. Unintended pregnancy remains a significant public health concern worldwide, with a recent global estimate showing that 44% of all pregnancies between 2010 and 2014 were unwanted¹²¹. Addressing unintended pregnancy is critical given its adverse consequences, among which are intimate partner violence, depression, suicidal ideation, anxiety, stress, lesser relationship satisfaction and social support, and even death^{66,122}. Adolescent girls in sub-Saharan Africa (SSA) are particularly susceptible to unintended pregnancy due to gender inequality, poverty, sexual violence and coercion, national policies restricting access to pregnancy prevention, child marriage, lack of access to sexuality education, and underinvestment in adolescent girls' human capital^{40,99,104}.

Beyond the impacts of contraceptive utilization at the individual level, there are benefits at the population level. From a macroeconomic perspective, reductions in fertility enhance economic growth as a result of reduced numbers of dependent children and youth relative to the population of working age and an increased number of women participating in paid labour^{36,75}.

Continued rapid population growth presents challenges for achieving the Sustainable Development, particularly in sub-Saharan Africa where nations must provide health-

care services, education and eventually employment opportunities for growing numbers of children and youngsters^{5,123}.

The effectiveness of the pregnancy preventives method utilization to prevent unintended pregnancy is a major component affecting prevalence of unintended pregnancy and birth rates among adolescent girls. Improving pregnancy preventives access and usage is vital to overcome the challenge of unintended pregnancies among unmarried young girls, and this will help reduce the rates of morbidity and mortality as a result of pregnancy termination^{8,34}.

Access to health-care services and the realization of reproductive rights for all will also be essential to fulfil the pledge of the 2030 plan for Sustainable Development Goals (SDGs) that “no one will be left behind”. Meeting the pregnancy preventives needs of adolescent girls is crucial for the attainment of multiple goals and targets of the 2030 Plan, in part because utilization of its contribution to achieving gender equality and the empowerment of women. However, ensuring that women have access to safe and effective means of family planning is insufficient on its own^{5,123}.

Contraception is not only essential to directly improve reproductive health outcomes, but it is also positively associated with improvements in health, academic attainment and economic outcomes^{4,36,81}.

After decades of programs to improve adolescent sexual and reproductive health (ASexual and reproductive health (SRH)), it has become increasingly clear that strengthening access to, and the quality of, services does not alone suffice to improve health outcomes. The young girls are strongly influenced by a range of social, cultural, political, and economic components and inequalities^{49,88,124}. These components

increase young girls' vulnerability to SRH risks (e.g., unsafe sex, sexual coercion, early pregnancy) and pose barriers to their access to information and services ¹²⁴. Addressing these underlying determinants by working with various stakeholders such as parents, community members, and policy makers, is essential for young girls to realize their SRH and human rights. Such an approach is commonly referred to as building an enabling environment ⁵⁵.

Despite the clear need for access to Sexual and reproductive health (SRH), coverage rates are low. Data from five nations in SSA with high rates of new HIV infections found that 7%-31% of males and 9%-58% of girls aged 15-24 years had been tested for HIV and received their results ¹²⁵. Less than half of young men in SSA reported using condoms at the time of the last sexual intercourse, and rates were even lower among young women ¹²⁶. In SSA, as many as greater percentage of young girls have an unmet need for pregnancy prevention. Rates of skilled birth attendance and critical intervention to reduce maternal and newborn mortality are 55% in developing countries; coverage is similarly low among adolescent births, despite the higher risk related to young maternal age ^{4,125}. Efforts in recent years have focus on not only ensuring health service availability but also making its provision adolescent-friendly that is, accessible, acceptable, equitable, appropriate, and effective ⁷⁵.

2.1.9 Cultural influences on adoption and selection choice of contraceptives

Contraceptives lie at the heart of proper family planning. But its utilization can be shaped by several components. This includes cultural norms and values as well as the desires and decisions of couples. Myths and misconceptions also play a role,

including beliefs that people who utilise contraceptives end up with health problems or permanent infertility, or, at one extreme, that contraceptives reduce sexual urge, and at the other that they increase promiscuity among women ^{38,97}. The impact of belief in personal and community health practices is very strong. Belief may not be true scientifically and as such may make one rightly or wrongly access health care ¹¹³. However, the attitudes and views of adolescent girls, and the primary utilization of family planning methods should be evaluated when introducing any new pregnancy preventive method.

Universal access to sexual and reproductive health (sexual and reproductive health (SRH) services and rights by 2030, including family planning, is a priority in the global Agenda for Sustainable Development, as laid out in Goals 3 (to ensure good health and promote wellbeing at all ages) and 5 (achieve gender equality and empower all women and girls) ⁵⁴. Pregnancy preventive awareness and access are undoubtedly shaped by the surrounding socioeconomic and cultural environment, as are personal attitudes and feelings about pregnancy prevention ^{67,113,127}. This cultural and ethnic diversity is reflected in widely varying awareness about and attitudes toward pregnancy prevention and fertility control.

In some places, restrictive laws and policies continue to affect the ability of young girls to obtain and utilise pregnancy prevention ^{24,72}. In many others, even though there are no legal restrictions in providing family planning services to young girls, the attitudes and opinions of health workers and community leaders have been often found to limit pregnancy preventive information and inhibit pregnancy preventive utilization before marriage ⁷². Besides, even in places where young girls can obtain

contraceptives, social and cultural norms play a major role in repressing their utilization, making it more difficult for them to achieve the desired family size^{80,113}. Misconceptions about the immediate and long-term side effects of pregnancy preventive methods on their health and future ability to bear children are also commonly reported barriers among female adolescents¹²⁷. Young girls who are not married can face several barriers to access and utilization of contraceptives because utilization of sexual activity is only evaluated as acceptable within marriage in many settings. Married young girls, on the other hand, are often under pressure to have a child soon after marriage and end up pregnant early^{44,103,128}.

One-third of girls in LMICs are married or in a union before the age of 18, with great variation across nations¹⁰³. In Caribbean countries, the early sexual debut is at 37.2% and 16.9% in boys and girls respectively¹²⁹. In Southern, middle, and west Africa, the early sexual debut is quite similar in both sexes and ranges from 18 to 25% while in eastern Africa early sexual debut is low between 13 to 15% of women having sex before the age of 15 years¹³⁰. In Malawi, 13% of females and 22% of males had their first copulation before 15 years of age. And 7% of adolescent girls aged 15–19 years old get pregnant before 15 years of age¹³¹. Low decision-making power and rigid social norms often result in low utilization of effective methods of pregnancy prevention among adolescent girls³². Already stated that cultural norms serve as one of the barriers to contraceptives as adolescent girls give thought to this to avoid being stigmatized. Adolescents feel that they would be embarrassing their families if they utilised contraceptives^{98,104}. Moreover, there is a perception among some community members that women who utilise contraceptives have multiple and concurrent sexual

partners. Thus, these cultural barriers lead to sub-optimal utilization of contraceptives among young girls ⁵.

In many African traditional cultural settings, pregnancy before marriage is often evaluated as an abomination. Given this, many single adolescents who get pregnant seek pregnancy termination services for fear of harsh societal judgment and prejudice ⁵⁰. Negative stereotypes, stigma, misconceptions and fear limit uptake of pregnancy prevention. Social stigma, fear and embarrassment were also identified as common barriers to youngsters accessing pregnancy prevention services – including the disposition of the service providers^{25,30}.

At the policy level, laws against pregnancy preventive access for adolescents exist around the world. In Nigeria, the report found that no law currently protects against providers requiring authorization or parental consent. Additionally, though laws exist that support access regardless of age, there are no provisions that support the coverage of a full range of methods no matter the age ^{38,85}. At the community and organizational levels, religious restrictions, provider bias, community stigma, cultural perceptions and, lack of youth-friendly services have been found to negatively impact young girls' decisions to seek a method ^{38,72}.

For the goals of Family Planning 2020 and SDG 3 and 5 to be achieved, more information is needed on components associated with pregnancy preventive utilization among unmarried girls in low contraceptive prevalence settings such as Nigeria. Access to pregnancy prevention can be more challenging for young girls; while the age of consent for sexual activity in Nigeria is 18 (Act No. 26 of 2003), access to contraceptives is not officially restricted based on age³⁰. Many providers, however,

restrict access to pregnancy prevention based on age or parity restrictions of their own; this is likely an act of self-preservation in the face of unclear laws¹³².

Cultural beliefs and gender norms greatly influence pregnancy prevention utilization. Numerous studies note that barriers to operationalizing awareness related to contraception utilization include peer pressure and adolescent girls' difficulty in negotiating pregnancy preventive utilization with male partners^{23,80}.

Similarly, cultural norms around early marriage and practices related to initiation rites in Tanzania prevented adolescent girls from accessing pregnancy prevention services³¹. Research in a township in South Africa found that cultural norms resulted in high rates of early childbearing⁴. A World Bank assessment of the SRH needs of adolescents in Niger found that while awareness of contraception was high, the majority of adolescent girls did not utilise it due to societal and cultural beliefs²⁴.

The traditional norm of not using modern pregnancy prevention is sometimes deeply embedded and can take a long time to change, despite interventions. The World Bank's (2015) World Development Report suggested that 'fertility transition may be better viewed as a norm-driven process than as the aggregate outcome of autonomous decisions. Contradictory messages from partners, parents, clergy, teachers, cultural leaders and health workers about whether to utilise contraceptives are identified as key obstacles to contraceptive uptake in Uganda¹³³.

2.1.10 Overview of Prominent Theoretical Health behaviour Models

In this section some related and applicable theories of pregnancy prevention are reviewed and also attempt will be made to show how these theories directly or

indirectly influence the awareness and utilization of pregnancy preventive methods as related to adolescents.

2.2 Theoretical Review

2.2.1 Theory of Reasoned Action (TRA)

In 1975, Martin Fishbein and Icek Ajzen developed what is now known as the Theory of Reasoned Action. The hypothesis is based on the idea that most individuals have a very logical and methodical approach to making use of the knowledge that is available to them. This is the premise around which the hypothesis is built. People consider the outcomes of their decisions before acting or abstaining from a specific behavior in a given circumstance and at a given time. The majority of socially significant behaviors are decisions that are made voluntarily, and people do so before engaging in or abstaining from a specific behavior. The theory of Reasoned Action places a particular emphasis on the importance that one's personal intentions play in determining whether or not activity will take place. The idea asserts that there are two primary components that determine a person's 43 motivations and actions. 2. Subjective norms and 1. an attitude toward the behavior, which is what we mean when we talk about social impact. The concept is extremely reliant on "normative" beliefs, which are often concerned with what a person believes other people, particularly influential ones, would expect him or her to do. This theory largely relies on "normative" views. For instance, in order for a person to begin using contraceptives, their mindset might be that "having sex while using a contraceptive is just as good as having sex while not using a contraceptive," and their normative belief might be that "most of my peers are using contraceptives; they would expect me to do so as well." Both of these attitudes

and beliefs are necessary for the individual to start using contraceptives. Interventions that utilize theory to steer activities focus a major emphasis on people's attitudes toward risk-reduction, how people react to social norms, and their aims to modify dangerous behavior. This is because theory can help explain why people do the things they do.

2.11.2 The theory of planned behaviour (TPB)

The theory of planned behaviour (TPB) is employed to gain an insight into individual behaviour. TPB is a sub-category of TRA and behaviours that are analyzed using this instinctive method. But for behaviours that are not controlled by instinct, perceived behavioural control (PBC) is used which is also a sub-category to TRA¹³⁴. TPB has three features that account for one's intention and it is probably the most powerful forecaster of one's behaviour¹⁴⁰. Attitude in one's behaviour focuses on how an individual sees their health under examination which could be an attitude of optimism or pessimism. The term attitude consists of one's beliefs, awareness and values; it also includes a strong desire to know if the outcomes of behaviour are good or bad¹³⁴. One's attitude can be used as a safe determinant of one's pattern of behaviour¹⁴⁰. Subjective norms can be explained to be a perceived social pressure to behave in a certain way whether conventional or unconventional. It involves an individual's beliefs, whether significant, or whether others would approve or disapprove of it. It also explains one's stimulant to behave in a certain way or to simply do what others expect¹³⁴. Subjective norms have many ways of influencing one's behaviour, however, it is not accurate when it comes to predicting people's behaviour because it

does not have enough measurement¹⁴⁰. The TPB has been employed in the evaluation of many behaviours which also encompasses sexual behaviour, addiction and others¹⁴¹. Contemporary research has utilized the TPB to also foresee behaviour interventions for youngsters¹⁴².

2.11.3 The Health Belief Model (HBM)

The Health Belief Model is usually an applied theory of health behaviour and it uses six features to forecast people's health department: risk susceptibility, risk stringency, advantages and obstacles to action and self-efficacy^{143,144}. This theory was first formulated to be used as a prototype for using preventive health department in the USA; there has also been harmonized to be used where there is a diversity of cultures^{145,146}. The HBM was first developed in 1950 to endeavour to explain and predict health department. It was done by various psychologists in the United States public health service. It clasps that health department is a function of individuals' socio-demographic characteristics, awareness and attitudes¹⁴⁴. This model is a framework for motivating adolescents to adopt positive health actions using the desire to avoid negative health consequences as the prime motivation.

The above-reviewed theories are important and suitably relevant for the explanation of adolescents' contraceptive use and practice in Ogun state and Nigeria at large. The utilization and adoption of these theories are going to find useful applications towards an understanding of the effectiveness, attitudes, awareness and ineffectiveness of sage of existing contraceptive methods regarding adolescents. Furthermore, these theories are useful tools for health workers and other related agencies working for the

betterment of youths' health towards making the right decision and also to facilitate policy-making adequately obtain good results in our health sectors.

2.4 Conceptual Framework

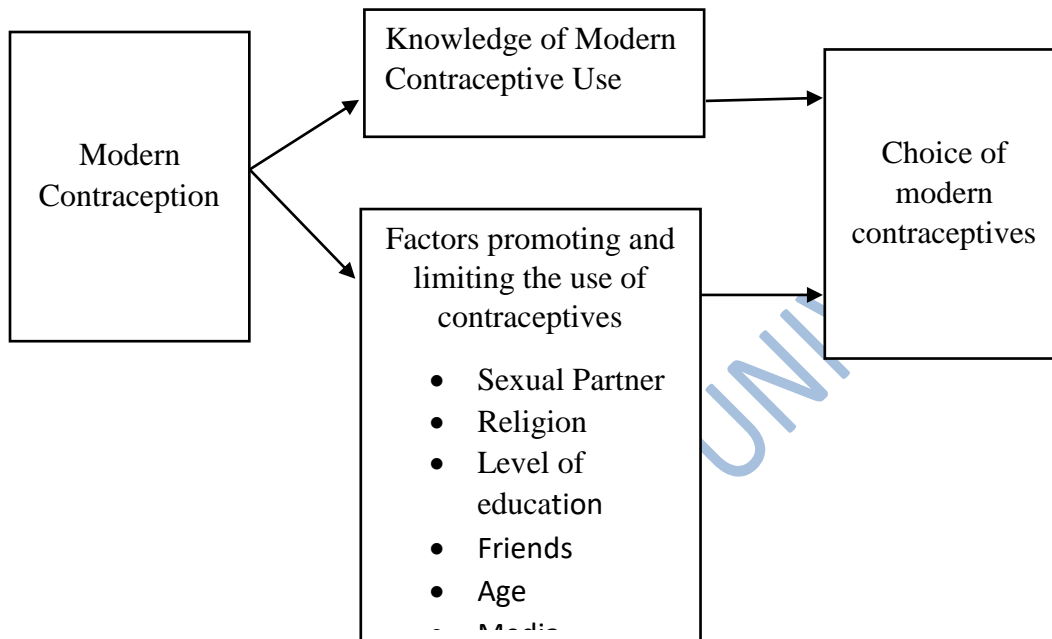


Figure 4.1: Conceptual Framework (Adapted)

The conceptual framework above shows the nexus that exist between the independent and the dependent variables of the study. The figure further shows that there is connection between knowledge of modern contraceptive and choice of contraceptive in this study. Also, there are certain factors (sexual partner, relatives, lecturers, friends, sexual education classes, media and the likes) that influence the sexual behavior of respondents. These relationships will be established in this study in a bid to recommend pragmatic solutions to the issues of modern contraception and sexual behavior.

Endnote

60. Mohammed, S. B., Y. Ya'aba, M. Njoku, M. C. Abarike, K. S. Izebe, M. N. Ezeunala, M. Usoroh, "Prevalence of HIV among Adolescent Children in Abuja, the Federal Capital Territory, Abuja Nigeria." **Open Journal of Epidemiology** 09, no. 04, 2019: 321–328.
61. J. Smith, *Improving adolescent access to contraception in sub-Saharan Africa: A review of the evidence*, **African Journal of Reproductive Health**, 24, 2020, 152–164.
62. Adedini, Sunday A., Jacob Wale Mobolaji, Matthew Alabi, & Adesegun O. Fatusi. "Changes in Contraceptive and Sexual Behaviours among Unmarried Young People in Nigeria: Evidence from Nationally Representative Surveys." **PLOS ONE** 16, no. 2, 2021.
63. Rodić, Ljiljana, & David Wilson. "Resolving Governance Issues to Achieve Priority Sustainable Development Goals Related to Solid Waste Management in Developing Countries." **Sustainability** 9, no. 3, 2017: 404.
64. Kantorová, Vladimíra, Mark C. Wheldon, Aisha N. Dasgupta, Philipp Ueffing, & Helena Cruz Castanheira. "Contraceptive Use and Needs among Adolescent Women Aged 15–19: Regional and Global Estimates and Projections from 1990 to 2030 from a Bayesian Hierarchical Modelling Study." **PLOS ONE** 16, no. 3 2021.
65. K. Perhudoff, D. Kibira, E. Wuyts, C. Pericas, J. Omwoha, H. A. van den Ham, A. K. Mantel-Teeuwisse, & K. Michielsen, *A comparative human rights analysis of laws and policies for adolescent contraception in Uganda and Kenya*, **Reproductive Health**, 19, 2022, 1–14
66. United Nations, *World Fertility and Family Planning 2020*, 2020.
67. "UN Sustainable Development Goals Report 2017: United Nations Development Programme." **UNDP**. Accessed November 2, 2022. <https://www.undp.org/publications/un-sustainable-development-goals-report-2017>.
68. Mathewos, Samuel, & Aleme Mekuria. "Teenage Pregnancy and Its Associated Factors among School Adolescents of Arba Minch Town, Southern Ethiopia." **Ethiopian Journal of Health Sciences** 28, no. 3, 2018: 287.
69. Ernawati, Hery, Anni Fithriyatul Mas'udah, Ova Emilia, Lely Lusmilasari, Laily Isroin, & Metti Verawati. "The Use of Contraception and Adolescent Fertility in

Indonesia.” **Open Access Macedonian Journal of Medical Sciences** 9, no. G 2021: 168–171.

70. I. Ngerageze, *Utilization of contraceptive methods among secondary school female adolescents at a selected secondary school in Rwamagana district, Rwanda*. 2019.
71. Deitch, Julianne, & Lindsay Stark. “Adolescent Demand for Contraception and Family Planning Services in Low- and Middle-Income Countries: A Systematic Review.” **Global Public Health** 14, no. 9, 2019: 1316–1334.
- 72J. Birchall, *Early marriage, pregnancy and girl child school dropout, Knowledge, evidence and learning for development*, 2, 2018, 1–15.
- 73Kungu, Wambui, Anne Khasakhala, & Alfred Agwanda. “Use of Long-Acting Reversible Contraception among Adolescents and Young Women in Kenya.” **PLOS ONE** 15, no. 11, 2020.
- 74S. Kapira, *Assessing Barriers of Contraceptive Uptake among Adolescent Girls in a Rural District of Malawi*, ProQuest Dissertations and Theses, 2021, 67.
- 75de Vargas Nunes Coll, Carolina, Fernanda Ewerling, Franciele Hellwig, & Aluísio Jardim de Barros. “Contraception in Adolescence: The Influence of Parity and Marital Status on Contraceptive Use in 73 Low-and Middle-Income Countries.” **Reproductive Health** 16, no. 1, 2019.
- 76Melesse, Dessalegn Y, Martin K Mutua, Allysha Choudhury, Yohannes D Wado, Cheikh M Faye, Sarah Neal, & Ties Boerma. “Adolescent Sexual and Reproductive Health in Sub-Saharan Africa: Who Is Left behind?” **BMJ Global Health** 5, no. 1, 2020.
- 77“Tanzania Demographic & Health Survey 2015-2016.” *GHDx*. Last modified January 1, 1970. Accessed November 2, 2022.
<https://ghdx.healthdata.org/record/tanzania-demographic-and-health-survey-2015-2016>.
- 78 K. Tull, *Evidence on family planning use in young people of Tanzania*, 2019, 16.
- 79Sabo, Aliyu Sokoto, Lawali Yakubu, Aliyu Alkammawa Luba, Samira L. Ya`u, A. T. Bakare, Muhammad Fatima, Isah M. Zayyanu, and Musa A. Zulkiflu. “Influence of Socio-Demographic Variables on the Choice of Contraceptives among Women Attending ANC Unit at Specialist Hospital Sokoto, Sokoto State, Nigeria.” **International Journal of Reproduction, Contraception, Obstetrics and Gynecology** 7, no. 7, 2018: 2565.

- 80 Arisukwu, Ogadimma, Chisaa Onyekachi Igbolekwu, Ifunaya Efugha, Joseph Nkemakolam Nwogu, Ngozi O. Osueke, & Eyitayo Oyeyipo. “*Knowledge and Perception of Emergency Contraceptives among Adolescent Girls in Imo State, Nigeria.*” **Sexuality & Culture** 24, no. 1, 2019: 273–290.
- 81 Olonade, Olawale, Tomike I. Olawande, Oluwatobi Joseph Alabi, & David Imhonopi. “*Maternal Mortality and Maternal Health Care in Nigeria: Implications for Socio-Economic Development.*” **Open Access Macedonian Journal of Medical Sciences** 7, no. 5, 2019: 849–855.
- 82 McCurdy, Rebekah J, Xuezhi Jiang, & Peter F Schnatz. “*Long-Acting Reversible Contraception in Adolescents in Sub-Saharan Africa: Evidence from Demographic and Health Surveys.*” **The European Journal of Contraception & Reproductive Health Care** 23, no. 5, 2018: 357–364.
- 83 U. Ezenwaka, C. Mbachu, C. Okeke, I. Agu, N. Ezumah, & O. Onwujekwe, *Socio-demographic and economic determinants of awareness and use of contraceptives among adolescents in Ebonyi State, South-east, Nigeria*, **African Journal of Reproductive Health**, 25, 2021, 22.
- 84 Alubo, Ogoh. “*Adolescent Reproductive Health Practices in Nigeria.*” **African Journal of Reproductive Health** 5, no. 3, 2001: 109.
- 85 Funmito Omolola, Fehintola, Fehintola Akintunde Olusegun, Ogunlaja Olumuyiwa A, Akinola Samuel Egun, Awotunde Timothy Olufemi, Ogunlaja Idowu Paulin, & Ogundele Olorunfemi Akinbode. “*Prevalence and Predictors of Early Sexual Debut among Adolescents in Ogbomoso, Nigeria.*” **American Journal of Public Health Research** 6, no. 3, 2018: 148–154.
- 86 Li, Zhihui, George Patton, Farnaz Sabet, Zhiying Zhou, S. V. Subramanian, & Chunling Lu. “*Contraceptive Use in Adolescent Girls and Adult Women in Low- and Middle-Income Countries.*” **JAMA Network Open** 3, no. 2, 2020.
- 87 Adedini, A, Sunday, Stella Babalola, Charity Ibeawuchi, Olukunle Omotoso, Akinsewa Akiode, & Mojisola Odeku. “*Role of Religious Leaders in Promoting Contraceptive Use in Nigeria: Evidence from the Nigerian Urban Reproductive Health Initiative.*” **Global Health: Science and Practice** 6, no. 3 2018: 500–514.
- 88 “Universal Access to Reproductive Health: Progress and Challenges.” *United Nations Population Fund*. Accessed November 2, 2022.
<https://www.unfpa.org/publications/universal-access-reproductive-health-progress-and-challenges>.
- 89 E. A. Envuladu, V. De Kwaak Anke, P. Zwanikken, & A. I. Zoakah, Sexual and Reproductive Health Challenges of Adolescent Males and Females in some

Communities of Plateau State Nigeria, *International Journal of Psychology and Behavioral Sciences*, 7, 2017, 55–60.

- 90 Johnson, Ofonime, & Ikobong Ekong. “*Knowledge, Attitude and Practice of Family Planning among Women in a Rural Community in Southern Nigeria.*” **British Journal of Medicine and Medical Research** 12, no. 2, 2016: 1–8.
- 91 Bijlmakers, Leon, Billie de Haas, & Anny Peters. “*The Political Dimension of Sexual Rights.*” **Reproductive Health** 15, no. 1, 2018.
- 92 Barral, L. Romina, Brenda Cartujano, Jaime Perales, Mariana Ramirez, D. John Cowden, Maria E. Trent, Megha Ramaswamy, & Sarah Finocchario Kessler. “*Knowledge, Beliefs, and Attitudes about Contraception among Rural Latino Adolescents and Young Adults.*” **The Journal of Rural Health** 36, no. 1, 2019: 38–47.
- 93 Tarek Tawfik Amin Follow. *Research Question, Criteria, Formulation, and Relation to Research De...* Accessed November 2, 2022. <https://www.slideshare.net/TarekTawfikAmin/research-question-criteria-formulation-and-relation-to-research-designs>.
- 94 Chandra-Mouli, Venkatraman, Pooja S. Parameshwar, Matti Parry, Catherine Lane, Gwyn Hainsworth, Sylvia Wong, Lindsay Menard-Freeman, “*A Never-before Opportunity to Strengthen Investment and Action on Adolescent Contraception, and What We Must Do to Make Full Use of It.*” **Reproductive Health** 14, no. 1 2017.
- 95 Batwala, VK, F Nuwaha, EM Mulogo, F Bagenda, F Bajunirwe, & JB Mirembe. “*Contraceptive Use among in and out-of School Adolescents in Rural Southwest Uganda.*” **East African Medical Journal** 83, no. 1, 2006.
- 96 “What Are the Different Types of Contraception?” *Eunice Kennedy Shriver National Institute of Child Health and Human Development*. U.S. Department of Health and Human Services, n.d. Accessed November 2, 2022. <https://www.nichd.nih.gov/health/topics/contraception/conditioninfo/types>.
- 97 Suresh, C. Sunitha, Lauren Questell, & Carolyn Sufrin. “*Access to Reproductive Health Care in Juvenile Justice Facilities.*” **Journal of Pediatric and Adolescent Gynecology** 33, no. 3, 2020: 296–301.
- 98 S. Eli, D. G. Kalio, K. Okagua, C. E. Enyindah, & D. S. Abam. “*Access to Contraception amongst Female Adolescents: Rivers State Study.*” **Journal of Advances in Medicine and Medical Research** 2020: 91–92.

- 99Soper, Katie, and Giuseppina Di Meglio. "Accessibility of Emergency Contraception for Adolescents in Quebec Community Pharmacies." **Paediatrics & Child Health** 25, no. 6, 2019: 385–388.
- ¹⁰⁰J. E. Darroch, V. Woog, A. Bankole, & L. S. Ashford, *Adding it up: costs and benefits of meeting the contraceptive needs of adolescents*, 2016.
- 101Borges, Ana Luiza, Elizabeth Fujimori, Maria Cristina Kuschnir, Christiane Borges Chofakian, Ana Júlia Moraes, George Dantas Azevedo, Karine Ferreira Santos, & Mauricio Teixeira Vasconcellos. "Erica: Sexual Initiation and Contraception in Brazilian Adolescents." **Revista de Saúde Pública** 50, no. suppl 1, 2016.
- 102"Family Planning and the 2030 Agenda for Sustainable Development: Data Booklet | Population Division." **United Nations**. United Nations, n.d. Accessed November 2, 2022. <https://www.un.org/development/desa/pd/content/family-planning-and-2030-agenda-sustainable-development-data-booklet>.
- 103Lompo, Miaba Louise, Jean-Louis Bago, & Wamadini Souratie. "Estimating the Impact of School Education on Contraception Use among Adolescents Aged 15–19 in Burkina Faso and Nigeria: Evidence from a Heckman Two-Step Correction Model." **Journal of Education and Learning** 7, no. 5, 2018: 31.
- 104Nalukwago, Judith, Rik Crutzen, Bart van den Borne, Paul Bukuluki, Leonard Bufumbo, Holly Burke, Samuel Field, Amos Zikusooka, Anne Fiedler, & Jane Alaii. "Socio-Cognitive Factors Associated with Condom Use, Multiple Sexual Partnerships, and Contraception Use among Sexually-Active Adolescent Girls in Uganda." **Global Journal of Health Science** 10, no. 8, 2018: 41.
- 105Kalamar, Amanda M., Özge Tunçalp, & Michelle J. Hindin. "Developing Strategies to Address Contraceptive Needs of Adolescents: Exploring Patterns of Use among Sexually Active Adolescents in 46 Low- and Middle-Income Countries." **Contraception** 98, no. 1, 2018: 36–40.
- 106Singh, Ijyaa, Ankita Shukla, Jissa Vinoda Thulaseedharan, & Gurpreet Singh. "Contraception for Married Adolescents (15–19 Years) in India: Insights from the National Family Health Survey-4 (NFHS-4)." **Reproductive Health** 18, no. 1, 2021.
- 107Berhane, Yemane, Alemayehu Worku, Dagmawit Tewahido, Nebiyu Fasil, Hanna Gulema, W. Amare Tadesse, & Semira Abdelmenan. "Adolescent Girls' Agency Significantly Correlates with Favorable Social Norms in Ethiopia—Implications for Improving Sexual and Reproductive Health of Young Adolescents." **Journal of Adolescent Health** 64, no. 4, 2019.

- 108Cordova-Pozo, Kathya, Sarah Borg, Andrea J. Hoopes, Alma Virginia Camacho-Hubner, Fanny Corrales-Ríos, Adriane Salinas-Bomfim, and Venkatraman Chandra-Mouli. “*How Do National Contraception Laws and Policies Address the Contraceptive Needs of Adolescents in Paraguay?*” **Reproductive Health** 14, no. 1, 2017.
- 109Chandra-Mouli, Venkatraman, Donna R McCarraher, Sharon J Phillips, Nancy E Williamson, & Gwyn Hainsworth. “*Contraception for Adolescents in Low and Middle Income Countries: Needs, Barriers, and Access.*” **Reproductive Health** 11, no. 1, 2014.
- 110Mwaisaka, Jefferson, Yohannes Dibaba Wado, Ramatou Ouedraogo, Clement Oduor, Helen Habib, Joan Njagi, & Martin W. Bangha. “*‘Those Are Things for Married People’ Exploring Parents’/Adults’ and Adolescents’ Perspectives on Contraceptives in Narok and Homa Bay Counties, Kenya.*” **Reproductive Health** 18, no. 1, 2021.
- 111Young, Honor, Lorraine Burke, & Saoirse Nic Gabhainn. “*Sexual Intercourse, Age of Initiation and Contraception among Adolescents in Ireland: Findings from the Health Behaviour in School-Aged Children (HBSC) Ireland Study.*” **BMC Public Health** 18, no. 1, 2018.
- 112Wilkinson, A. Tracey, M. Stephen Downs, & Brownsyne Tucker Edmonds. “*Cost Minimization Analysis of Same-Day Long-Acting Reversible Contraception for Adolescents.*” **JAMA Network Open** 2, no. 9, 2019.
- 113Riley, Taylor, Elizabeth A. Sully, Naomi Lince-Deroche, Lauren Firestein, Rachel Murro, Ann Biddlecom, & Jacqueline E. Darroch. “*Adding It up: Investing in Sexual and Reproductive Health 2019—Methodology Report*” 2020.
- 114“Nigerian Youth Call for Action to Improve Adolescents' Health.” *World Health Organization*. World Health Organization, n.d. Accessed November 2, 2022. <https://pmnch.who.int/news-and-events/news/item/07-04-2021-nigerian-youth-call-for-action-to-improve-adolescents-health>.
- 115F. Eniojukan Joshua, Ofulue Ijeoma, & O. Okinedo Prince “*Knowledge, Perception and Practice of Contraception among Staff and Students in a University Community in Delta State, Nigeria.*” **Pharmaceutical and Biosciences Journal** 2015: 71–81.
- 116“Demographic and Health Survey 2018.” *Nigeria - Demographic and Health Survey 2018*. Accessed November 2, 2022. <https://microdata.worldbank.org/index.php/catalog/3540>.
- 117Atuhaire, Shallon, Jonas Ngendakumana, Ali Galadima, Ayoub Adam, and Rodrigue B. Muderhwa. “Knowledge and Attitude towards Contraceptive Use

- among Adolescents in Africa: A Systematic Review.” *International Journal of Reproduction, Contraception, Obstetrics and Gynecology* 10, no. 11 (2021): 4292.
- 118 Casey, E. Sara, C. Meghan Gallagher, Jessica Kakesa, Anushka Kalyanpur, Jean-Baptiste Muselemu, Raoza Vololona Rafanoharana, & Nathaly Spilotros. “Contraceptive Use among Adolescent and Young Women in North and South Kivu, Democratic Republic of the Congo: A Cross-Sectional Population-Based Survey.” **PLOS Medicine** 17, no. 3, 2020.
- 119 Semachew Kasa, Ayele, Mulu Tarekegn, & Nebyat Embiale. “Knowledge, Attitude and Practice towards Family Planning among Reproductive Age Women in a Resource Limited Settings of Northwest Ethiopia.” **BMC Research Notes** 11, no. 1, 2018.
- 120 Kamuyango, Asantesana, Wen-Hsuan Hou, & Chung-Yi Li. “Trends and Contributing Factors to Contraceptive Use in Kenya: A Large Population-Based Survey 1989 to 2014.” *International Journal of Environmental Research and Public Health* 17, no. 19, 2020: 7065.
121. Iyanda, Ayodeji Emmanuel, Barbara J. Dinkins, Tolulope Osayomi, Temitope Joshua Adeusi, Yongmei Lu, and Joseph R. Oppong. “Fertility Knowledge, Contraceptive Use and Unintentional Pregnancy in 29 African Countries: A Cross-Sectional Study.” *International Journal of Public Health* 65, no. 4 (2020): 445–455.
122. Onasoga, Olayinka. “Adolescents’ Knowledge, Attitude and Utilization of Emergency Contraceptive Pills in Nigeria’s Niger Delta Region.” **International Journal of MCH and AIDS IJMA** 5, no. 1, 2016.
123. Kara, Waheeda Shokat, Magreth Benedicto, & Jing Mao. “Knowledge, Attitude, and Practice of Contraception Methods among Female Undergraduates in Dodoma, Tanzania.” **Cureus** 2019.
124. Abdulahi, Maryan, Othman Kakaire, & Fatuma Namusoke. “Determinants of Modern Contraceptive Use among Married Somali Women Living in Kampala: a Cross Sectional Survey.” **Reproductive Health** 17, no. 1, 2020.
125. Srikanthan, Amirtha, & Robert L. Reid. “Religious and Cultural Influences on Contraception.” **Journal of Obstetrics and Gynaecology Canada** 30, no. 2, 2008: 129–137.
126. Cwiak, Carrie, Brandon Howard, Jennifer Hsieh, Nancy Ricciotti, and Gina S. Sucato. “Sexual and Contraceptive Behaviors among Adolescents Requesting Emergency Contraception.” *Journal of Pediatric and Adolescent Gynecology* 29, no. 6, 2016: 643–647.

127. Dut, Raziye, and Ragıp Atakan Al. "A Brief Study on the Knowledge and Choice of Contraception Methods in Married Adolescent Girls." **International Journal of Adolescent Medicine and Health** 33, no. 2, 2019.
128. Ajaero, K. Chukwuedozie, Clifford Odimegwu, Ijeoma D. Ajaero, & Chidiebere A. Nwachukwu. "Access to Mass Media Messages, and Use of Family Planning in Nigeria: A Spatio-Demographic Analysis from the 2013 DHS." **BMC Public Health** 16, no. 1, 2016.
129. Murphy, K. Molly, Cindy Stoffel, Meghan Nolan, & Sadia Haider. "Interdependent Barriers to Providing Adolescents with Long-Acting Reversible Contraception: Qualitative Insights from Providers." **Journal of Pediatric and Adolescent Gynecology** 29, no. 5, 2016: 436–442.
130. Folayan, Morenike Oluwatoyin, Morolake Odetoyinbo, & Abigail Harrison. "Differences in Use of Contraception by Age, Sex and HIV Status of 10–19-Year-Old Adolescents in Nigeria." **International Journal of Adolescent Medicine and Health** 29, no. 4, 2015.
131. Sedgh, Gilda, Lawrence B. Finer, Akinrinola Bankole, Michelle A. Eilers, & Susheela Singh. "Adolescent Pregnancy, Birth, and Abortion Rates across Countries: Levels and Recent Trends." **Journal of Adolescent Health** 56, no. 2 2015: 223–230.
132. Polis, B. Chelsea, E.K. Sarah Bradley, Akinrinola Bankole, Tsuyoshi Onda, Trevor Croft, & Susheela Singh. "Typical-Use Contraceptive Failure Rates in 43 Countries with Demographic and Health Survey Data: Summary of a Detailed Report." **Contraception** 94, no. 1, 2016: 11–17.
133. "Making the Case for Investing in Adolescent Reproductive Health: A ..." Accessed November 2, 2022.
<https://healtheducationresources.unesco.org/library/documents/making-case-investing-adolescent-reproductive-health-review-evidence-and-poppov>.
134. Ankomah, Augustine, Oladosu, & Anyanti. "Myths, Misinformation, and Communication about Family Planning and Contraceptive Use in Nigeria." **Open Access Journal of Contraception**, 2011: 95.
135. A. Tayo, O. Akinola, A. Adewunmi, L. Adelaja, & J. Shittu, *Contraceptive knowledge and usage amongst female secondary school students in Lagos, Southwest Nigeria Woman's trial View project Influence Of Vitamin D Levels on In-Vitro-Fertilization View project*, *Journal of Public Health and Epidemiology*, 3, 2011, 34–37.
136. Maly, Christina, Katherine A. McClendon, Joy Noel Baumgartner, Neema Nakyanjo, William George Ddaaki, David Serwadda, Fred Kakaire Nalugoda,

- Maria J. Wawer, Erika Bonnevie, & Jennifer A. Wagman. "Perceptions of Adolescent Pregnancy among Teenage Girls in Rakai, Uganda." *Global Qualitative Nursing Research* 4, 2017: 233339361772055.
- 137.K. Daniels, J. Daugherty, & J. Jones, *Current contraceptive status among women aged 15-44: United States, 2011-2013,NCHS data brief*, 2014, 1–8.
- 138.French, Rebecca S, Rebecca Geary, Kyle Jones, Anna Glasier, H Catherine Mercer, Jessica Datta, Wendy Macdowall, Melissa Palmer, Anne M Johnson, and Kaye Wellings. "Where Do Women and Men in Britain Obtain Contraception? Findings from the Third National Survey of Sexual Attitudes and Lifestyles (NATSAL-3)." *BMJ Sexual & Reproductive Health* 44, no. 1, 2017: 16–26.
- 139.Bradley, Sarah E.K., & John B. Casterline. "Understanding Unmet Need: History, Theory, and Measurement." *Studies in Family Planning* 45, no. 2, 2014: 123–150.
140. "Marrying Too Young." *United Nations Population Fund*. Accessed November 2, 2022. <https://www.unfpa.org/publications/marrying-too-young>.
- 141.Bolarinwa, Obasanjo Afolabi, Zemenu Tadesse Tessema, James Boadu Frimpong, Abdul-Aziz Seidu, & Bright Opoku Ahinkorah. "Spatial Distribution and Factors Associated with Modern Contraceptive Use among Women of Reproductive Age in Nigeria: A Multilevel Analysis." *PLOS ONE* 16, no. 12 2021.
142. World Health Organization. *Agenda for Sustainable Development*. Geneva, 2019. Accessed on 25 April 2022.
- 143.Meh, Catherine, Amardeep Thind, Bridget Ryan, & Amanda Terry. "Levels and Determinants of Maternal Mortality in Northern and Southern Nigeria." *BMC Pregnancy and Childbirth* 19, no. 1, 2019.
- 144.&NA; "Medical Eligibility Criteria for Contraceptive Use." *Inpharma Weekly* &NA; no. 1287, 2001: 6.
- 145.Ryder, Norman B. "Contraceptive Failure in the United States." *Family Planning Perspectives* 5, no. 3 (1973): 133.
- 146.Shoupe, Donna. "LARC Methods: Entering a New Age of Contraception and Reproductive Health." *Contraception and Reproductive Medicine* 1, no. 1 2016.
- 147.Moreno, Megan A. "Long-Acting Reversible Contraception for Adolescents." *JAMA Pediatrics* 170, no. 5, 2016: 516.

148. Pitts, Sarah, Carly E. Milliren, Claudia Borzutzky, Sofya Maslyanskaya, Grace Berg, & Amy D. DiVasta. "Adolescent/Young Adult Long-Acting Reversible Contraception: Experience from a Multisite Adolescent Medicine Collaborative." **The Journal of Pediatrics** 243, 2022: 158–166.
149. Rome, Ellen S., & Veronica Issac. "Sometimes You Do Get a Second Chance." **Pediatric Clinics of North America** 64, no. 2, 2017: 371–380.
150. Bukuluki, Paul, Peter Kisaakye, Maxime Houinato, Adekemi Ndieli, Evelyn Letiyo, & Dan Bazira. "Social Norms, Attitudes and Access to Modern Contraception for Adolescent Girls in Six Districts in Uganda." **BMC Health Services Research** 21, no. 1 2021.
151. National Population Commission NPC Nigeria & ICF, International: Nigeria Demographic and Health Survey 2013. Abuja, Nigeria and Rockville, Maryland, USA: NPC and ICF International, 2014. P203 -232. Accessed November 2, 2022. <http://www.sciepub.com/reference/163552>.
152. Hall, Victoria, Carlota Medus, George Wahl, Alida Sorenson, Melanie Orth, Monica Santovenia, Erin Burdette, & Kirk Smith. "Notes from the Field: Vibrio Cholerae Serogroup O1, Serotype Inaba — Minnesota, August 2016." **MMWR. Morbidity and Mortality Weekly Report** 66, no. 36, 2017: 961–962.
153. Tarkang, Elvis E. "Perceived Family Support Regarding Condom Use and Condom Use among Secondary School Female Students in Limbe Urban City of Cameroon." **BMC Public Health** 14, no. 1, 2014.
154. Apter, Dan. "Contraception Options: Aspects Unique to Adolescent and Young Adult." **Best Practice & Research Clinical Obstetrics & Gynaecology** 48 2018: 115–127.
155. Williams, Bria Nikole, Victoria C. Jauk, Jeff M. Szychowski, & Janeen L. Arbuckle. "Adolescent Emergency Contraception Usage, Knowledge, and Perception." **Contraception** 103, no. 5, 2021: 361–366.
156. "Adolescent Pregnancy." *World Health Organization*. World Health Organization, n.d. Accessed November 2, 2022. <https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy>.
157. T. Grant-Maidment, K. Kranzer, & R. A. Ferrand, *The Effect of Integration of Family Planning Into HIV Services on Contraceptive Use Among Women Accessing HIV Services in Low and Middle-Income Countries: A Systematic Review*, **Frontiers in Global Women's Health**, 3, 2022, 1–12.
158. Bearak, Jonathan, Anna Popinchalk, Leontine Alkema, & Gilda Sedgh. "Global, Regional, and Subregional Trends in Unintended Pregnancy and Its Outcomes

from 1990 to 2014: Estimates from a Bayesian Hierarchical Model.” **The Lancet Global Health** 6, no. 4, 2018.

- 159.E. A. Baku, *Influence of knowledge, attitude and beliefs on adolescent contraceptive use in greater Accra region, Ghana*, **West African Journal of Nursing**, 2, 2016, 1–10.
- 160.Chotchoungchatchai, Somtanuek, Aniqah Islam Marshall, Woranan Witthayapipopsakul, Warisa Panichkriangkrai, Walaiporn Patcharanarumol, & Viroj Tangcharoensathien. “*Primary Health Care and Sustainable Development Goals.*” **Bulletin of the World Health Organization** 98, no. 11, 2020: 792–800.
- 161.Kwon, Eunji, Myungsuk Kang, & Heejung Kim. “*Factors Associated with Using Contraception among Sexually Active Adolescents in Monocultural and Multicultural Families.*” **The Journal of School Nursing** 37, no. 6, 2020: 460–469.
- 162.Ahinkorah, Bright Opoku, Edward Kwabena Ameyaw, & Abdul-Aziz Seidu. “*Socio-Economic and Demographic Predictors of Unmet Need for Contraception among Young Women in Sub-Saharan Africa: Evidence from Cross-Sectional Surveys.*” **Reproductive Health** 17, no. 1, 2020.
- 163.Renjhen, Prachi, Ashwini Kumar, Sanjay Pattanshetty, Afrin Sagir, & Charmaine Minoli Samarasinghe. “*A Study on Knowledge, Attitude and Practice of Contraception among College Students in Sikkim, India.*” **Journal of the Turkish German Gynecological Association** 11, no. 2, 2010: 78–81.
- 164.Okigbo, Chinelo C., Ilene S. Speizer, Marisa E. Domino, Sian L. Curtis, Carolyn T. Halpern, & Jean C. Fotso. “*Gender Norms and Modern Contraceptive Use in Urban Nigeria: A Multilevel Longitudinal Study.*” **BMC Women's Health** 18, no. 1, 2018.
- 165.Ahinkorah, Bright Opoku, Melissa Kang, Lin Perry, Fiona Brooks, & Andrew Hayen. “*Prevalence of First Adolescent Pregnancy and Its Associated Factors in Sub-Saharan Africa: A Multi-Country Analysis.*” **PLOS ONE** 16, no. 2, 2021.
- 166.Pettifor, Audrey, Katie O'Brien, Catherine MacPhail, William C. Miller, & Helen Rees. “*Early Coital Debut and Associated HIV Risk Factors among Young Women and Men in South Africa.*” **International Perspectives on Sexual and Reproductive Health** 35, no. 02, 2009: 82–90.
- 167.Peltzer, Karl. “*Early Sexual Debut and Associated Factors among in-School Adolescents in Eight African Countries.*” **Acta Paediatrica** 99, no. 8, 2010: 1242–1247.

168. "The 2015-16 Malawi Demographic and Health Survey 2015-16 MDHS." *Bootstrap Example*. Accessed November 2, 2022. http://www.nsomalawi.mw/index.php?option=com_content&view=article&id=22&Itemid=108.
169. Yoost, Jennie L., Susan Paige Hertweck, & Susan N. Barnett. "The Effect of an Educational Approach to Pregnancy Prevention among High-Risk Early and Late Adolescents." **Journal of Adolescent Health** 55, no. 2, 2014: 222–227.
170. Nalwadda, Gorrette, Florence Mirembe, Josaphat Byamugisha, & Elisabeth Faxelid. "Persistent High Fertility in Uganda: Young People Recount Obstacles and Enabling Factors to Use of Contraceptives." **BMC Public Health** 10, no. 1 2010.
171. Ajzen, Icek. "The Theory of Planned Behavior." **Organizational Behavior and Human Decision Processes** 50, no. 2, 1991: 179–211.
172. Albarracín, Dolores, Blair T. Johnson, Martin Fishbein, & Paige A. Muellerleile. "Theories of Reasoned Action and Planned Behavior as Models of Condom Use: A Meta-Analysis." **Psychological Bulletin** 127, no. 1. 2001: 142–161.
173. Daley, Alison Moriarty. "What Influences Adolescents' Contraceptive Decision-Making? A Meta-Ethnography." **Journal of Pediatric Nursing** 29, no. 6, 2014: 614–632.
174. Buckingham, Pip, Jessica E. Moulton, Asvini K. Subasinghe, Natalie Amos, & Danielle Mazza. "Acceptability of Immediate Postpartum and Post-Abortion Long-Acting Reversible Contraception Provision to Adolescents: A Systematic Review." **Acta Obstetrica et Gynecologica Scandinavica** 100, no. 4, 2021: 629–640.
175. Ntshebe, Oleosi. "Contraceptive Decisions and HIV/AIDS Concerns among Married Couples in Malawi." **Journal of Biosocial Science** 43, no. 3, 2011: 329–343.
176. Cicerchia, Gaia, Lawrence D. Reid, & Diana N. Carvajal. "Contraceptive Decision-Making and the Importance of Side Effect Information among a Sample of Latinas." **Women's Health Reports** 3, no. 1, 2022: 78–84.
177. Armitage, Christopher J., & Mark Conner. "Efficacy of the Theory of Planned Behaviour: A Meta-Analytic Review." **British Journal of Social Psychology** 40, no. 4, 2001: 471–499.
176. Hardeman, Wendy, Marie Johnston, Derek Johnston, Debbie Bonetti, Nicholas Wareham, & Ann Louise Kinmonth. "Application of the Theory of Planned

Behaviour in Behaviour Change Interventions: A Systematic Review."
Psychology & Health 17, no. 2, 2002: 123–158.

177. Hackman, Christine, & Adam Knowlden. "Theory of Reasoned Action and Theory of Planned Behavior-Based Dietary Interventions in Adolescents and Young Adults: A Systematic Review." **Adolescent Health, Medicine and Therapeutics** 2014: 101.
178. Glanz, Karen, & Donald B. Bishop. "The Role of Behavioral Science Theory in Development and Implementation of Public Health Interventions." **Annual Review of Public Health** 31, no. 1, 2010: 399–418.
179. Champion, L. Victoria, O. Patrick Monahan, Jeffery K. Springston, Kathleen Russell, Terrell W. Zollinger, Robert M. Saywell, & Maltie Maraj. "Measuring Mammography and Breast Cancer Beliefs in African American Women." **Journal of Health Psychology** 13, no. 6, 2008: 827–837.
180. L. Griffin, S. Ryan, C. Hackett, & B. Ramsay. "The Use of Methotrexate in Adolescents: Contraception, Confidentiality and Consent." **British Journal of Dermatology** 178, no. 4, 2018: 987–988.
181. M. J. Griffin, *Health belief model, social support, and intent to screen for colorectal cancer in older African American men*, The University of North Carolina at Greensboro, 2011.

Chapter Three

Methodology

3.1 Research Design

This study adopted a cross sectional study design

3.2 Population of the Study

Participants included in the study were adolescent girls who are between age 15-19 years of age as at the time of study attending secondary schools and those in the early tertiary institutions.

3.3 Sample and Sampling Techniques

A multistage cluster sampling method was used in this study, at stage one a simple random sampling was used to choose the 3 senatorial districts, at stage two a cluster was used to select the study participants from the senatorial district

Sample size:

The sample size for this study was determined using the following parameters:

- Estimated population based on contraceptive prevalence of 28.3% among sexually active unmarried women of age 15-19 years (NDHS 2018)
- Z= number of deviation (at 95% confidence interval = 1.96)
- P= Prevalence rate of modern contraception from previous studies is 28.3% =

$$n = \frac{Z^2 p (1 - p)}{}$$

$$d^2$$

Where: n - minimum sample size required d - Is margin of error 5%

z - Confidence level 95%

p - Estimated proportion of adolescents

$$n = \frac{(1.96)^2 * 0.283(1 - 0.283)}{(0.050)^2}$$

$$n = \frac{3.8416 * 0.283 * 0.717}{0.0025}$$

$$n = \frac{0.7795}{0.0025}$$

$$0.0025$$

$$n = 312$$

Correcting for a possible non-response rate of 10%, the final calculation was $312/0.9$

$$= 347$$

3.4 Description of the Research Instrument

Data was collected using a self administered questionnaire.

The questionnaire is divided into four (4) different structures:

- i. Socio - Demographics
- ii. Knowledge Attitude and Practice towards Family Planning

- iii. Practice of Contraception
- iv. Perceived Challenges / Factors

The questionnaire was pre-tested in two schools in Oyo State to assess the validity of the questionnaire

3.5 Validity and Reliability of the Research Instrument

The questionnaire for the study was adopted from previous studies.

3.6 Data Collection

Data on demographic characteristics, knowledge and perceived factor were gathered using a structured questionnaire that has undergone validation.

3.7 Data Analysis

Data collected with the questionnaires were crosschecked for errors and cleaned. Information obtained from the questionnaire was entered into Statistical Package for Social Sciences (SPSS) version 23.0 for analysis and statistical calculation. Descriptive and inferential statistics were done. Categorical and nominal variables were expressed as percentages and continuous variables as means. Bivariate and multivariable logistic regression were done to ascertain association of independent variables and contraceptive use. Significance was set at 5% alpha level.

3.8 Ethical Considerations

Ethical approval for this study were obtained from Lead City University Health Research and Ethics Committee. Department of Planning Research and Statistics, Ogun State Ministry of Education Science and Technology, Oke Mosan, Abeokuta

Informed consent were obtained from the respondents by seeking their consent to participate in this study, after details about the study was explained to them, and strict confidentiality of all information obtained from respondents were maintained throughout the course of the study.

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Chapter Four

Results and Discussions of Findings

4.1 Demographic Data Analysis

The results presenting the demographic characteristics of the respondents are presented in Tables 1 and 2. The results showed that majority of the respondents (65.8%) were within the age brackets of 18-19 years. Furthermore, majority of the respondents (94.8%) were students of various tertiary institution. Furthermore, a significantly high proportion of the respondents (70.6%) were Christians, while the least proportion (29.4%) of the respondents were practicing Islam.

More than 50% of the respondents claimed that their fathers and mothers had tertiary education, followed by those with secondary education while the least proportion of the respondent's parent had Secondary education and below. Furthermore, a higher proportion of the respondents (46.7%) claimed to currently stay with their parents, followed by 53.3% who claimed to stay alone.

Table 2 presents the respondents' parent and/or guardian occupation. The results showed that a higher proportion of the respondents (34.8%) claimed that their fathers were into skilled job, while the least proportion of the respondents (65.2%) claimed that their fathers were into unskilled job. On the other hand, majority of the respondents (81.2%) claimed that their mothers were into different kinds of business, while the least proportion of the respondents (18.8%) claimed the mother's occupation is skilled.

Table 1: Demographic characteristics of the Respondents

Variables	Frequency	Percent
Age of respondent		
15-17 Years	113	34.2
18-19 Years	217	65.8
Place of schooling of the respondent		
Secondary	17	5.2
Tertiary	313	94.8
Religion		
Christianity	233	70.6
Islam	97	29.4
Place of residence		
Abeokuta	314	95.2
Lagos	13	3.9
Ibadan	3	.9
Mother's level of education		
Secondary	158	47.9
Tertiary	172	52.1
Father's level of education		
Secondary	142	43.0
Tertiary	188	57.0
Who you currently stay with		
Parent	154	46.7
Self	176	53.3
Occupation of the father		
Skilled job	115	34.8
Unskilled job	215	65.2
Occupation of the mother		
Skilled job	62	18.8
Unskilled job	268	81.2

4.2 Presentation of Data

4.2.1 Knowledge of contraception among adolescents girls

The results presenting the knowledge of contraception among school adolescents are presented in Table 2. The results showed that a higher proportion of the respondents (72.4%) answered correctly that Contraception is any method or procedure used to prevent pregnancy. Furthermore, the highest proportion of the respondents (84.2%) answered correctly that a girl become pregnant from unprotected sex.

Furthermore, a very high proportion of the respondents (76.4%) answered correctly that contraceptive during sex provide 100% protection from pregnancy. The highest proportion of the respondents 76.7% answered incorrectly that contraceptive is exclusively a woman's business. Furthermore, majority of the respondents (66.1%) agreed that Use of contraceptives can lead to promiscuity.

Table 4.2: Knowledge of contraception among adolescent girls

Variable	Correct	Incorrect
Contraception is any method or procedure used to prevent pregnancy	239(72.4%)	91(27.6%)
Can a girl become pregnant from unprotected sex?	278(84.2%)	52(15.8%)
Do you think that contraceptive during sex provide 100% protection from pregnancy	252(76.4%)	78(23.6%)
Is contraceptive exclusively a woman's business	253(76.7%)	77(23.3%)
Use of contraceptives can lead to promiscuity?	218(66.1%)	112(33.9%)

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Figure 4.1: Percentage Distribution of Knowledge of contraception among Adolescent girls

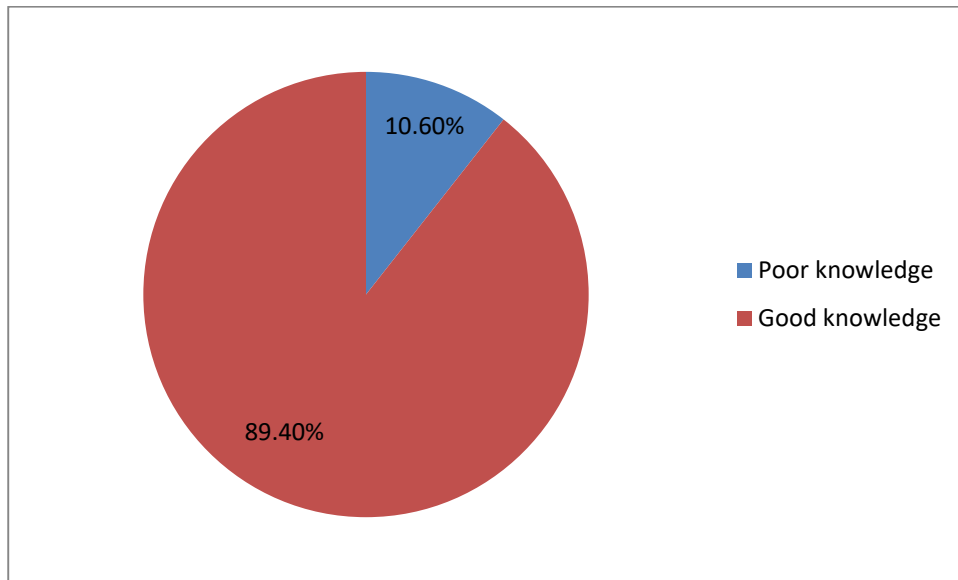


Figure 4.1 shows that only 10.60% of adolescent girls has poor knowledge of Contraceptives.

4.2.2 History of sexual experience and use of contraceptives among the selected school adolescents

The results presenting the history of sexual experience and use of contraceptives among the adolescents' girls are presented in Table 3. The results showed that 37.6% of the respondents claimed to have had sex before. The results further showed that a higher proportion of the respondents (68.5%) claimed to have their first sexual encounter at age 15-17 years, followed by 22.6% who had sex at age 18-19 years. Majority of the respondents (54.0%) claimed not to have ever use modern contraceptives before.

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Table 3: History of sexual experience and use of contraceptives among the selected school adolescents

Variable	Frequency	Percent
Have you ever had sex before		
Yes	124	37.6
No	206	62.4
Have you ever used modern contraceptives before?		
Yes	57	46.0
No	67	54.0
Age when you first had sexual intercourse		
11-14 years	11	8.9
15-17 years	85	68.5
18-19 years	28	22.6

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Figure 2: Types of contraception previously used by sexually actives adolescents' girls in the study

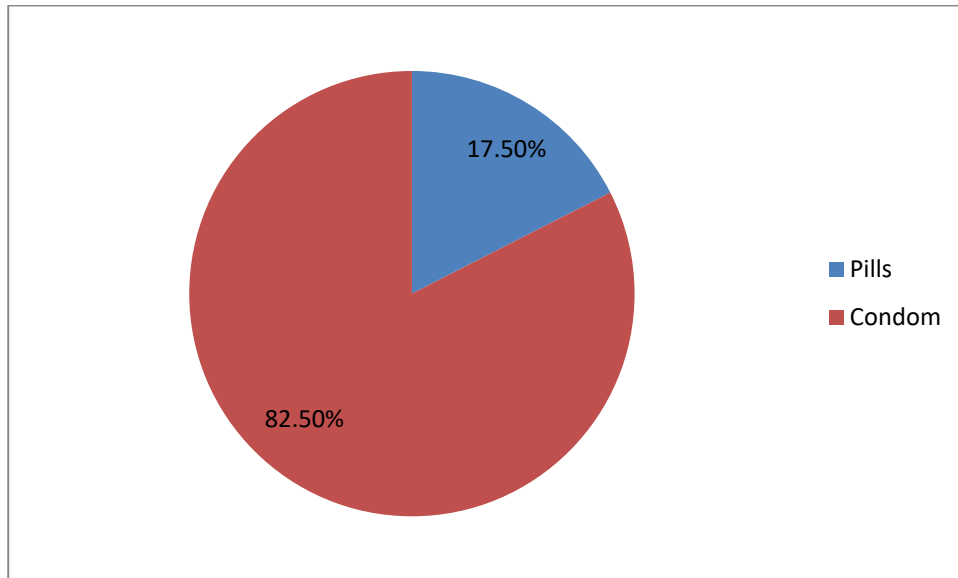
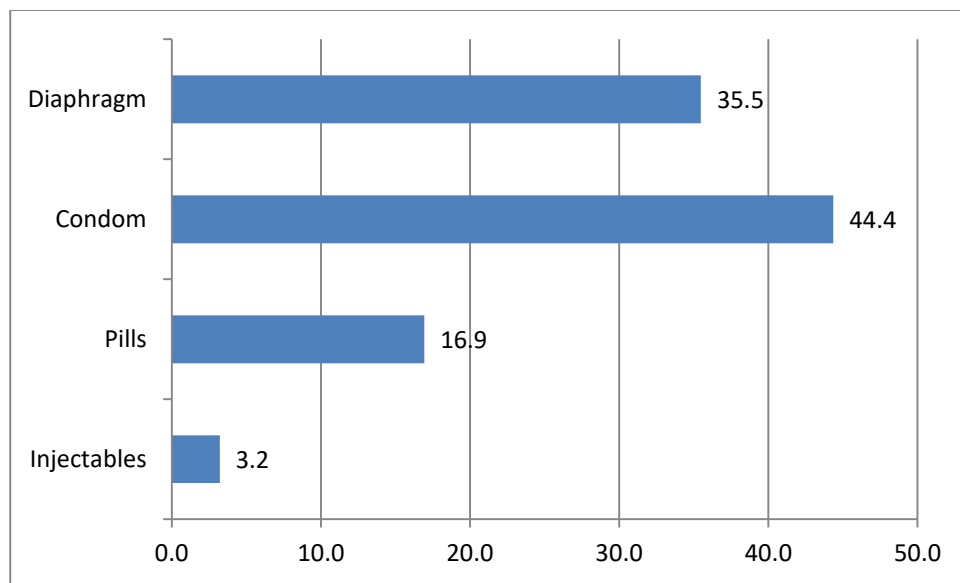


Figure 4.2 shows the highest proportion of the respondents (82.50%) who claimed to have used Condom before, while the least proportion 17.50% of the respondents claimed to have used pills before.

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Figure 3: Types of contraception currently used by sexually active adolescents' girls in the study



From Figure 4.3, the highest proportion of the respondents (44.4%) claimed to currently using condom, while the least proportion 3.2% of the respondents claimed to currently use IUD

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Figure 4.4: Source of contraceptives currently used by the respondents

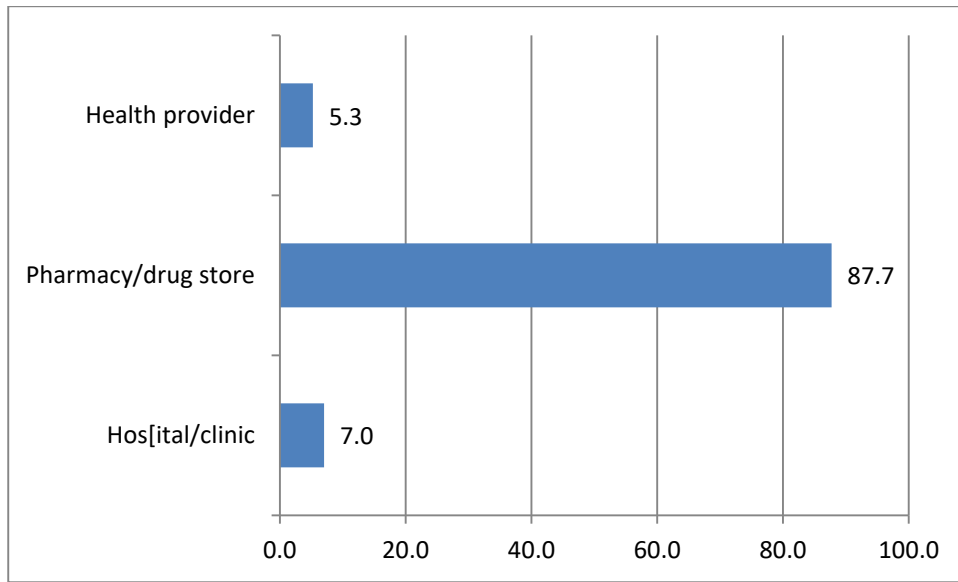
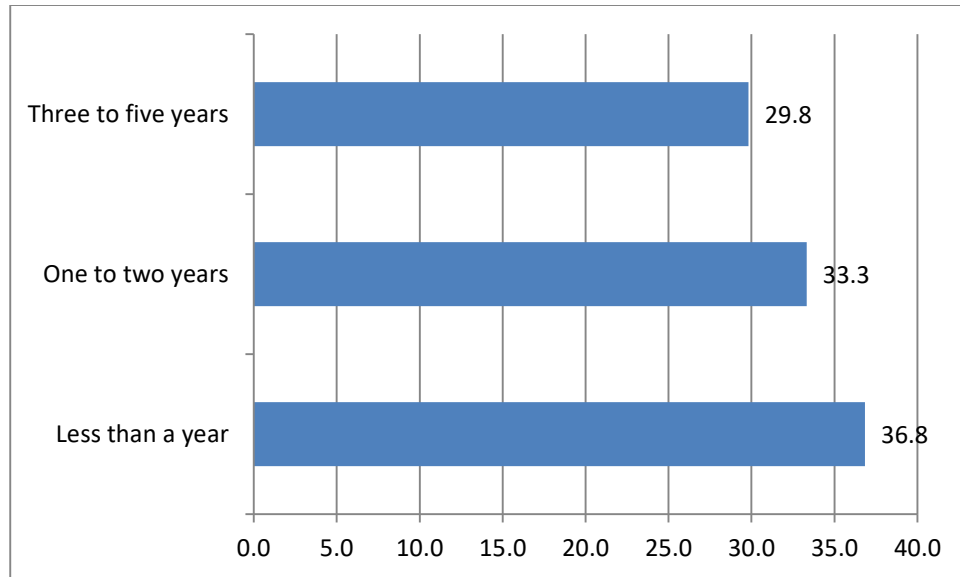


Figure 4 further showed that majority of the respondents 87.7% sourced their contraceptives at the drugs/pharmacy stores within their communities.

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Figure 5: Duration of contraceptive usage among the respondents



This shows that majority of the respondents 36.8% started using contraceptives since less than a year ago, followed by those who started using it between one to two years.

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Table 4 presents access to health education and perceived effects of health education on contraceptives use among the selected school adolescents. Majority of the respondents (71.8%) claimed that sex education can influence contraceptive use. Furthermore, a high proportion of the respondents (60.9%) claimed that health education was not included in their school syllabus. A high proportion of the respondents also claimed to have access to sex education both at home (62.1%) and at school (51.3%) respectively.

Most of the respondents claimed that there are some cultural/religious beliefs and practices that prevents the use of contraceptives among adolescent in their communities. These beliefs were dominantly influenced by the church (83.1% of the respondents), followed by the mosque (16.9%).

Table 4.4: Access to health education and perceived effects of health education on contraceptives use among the selected school adolescents

Variables	Frequency	Percent
Do you think sex education can influence contraceptive use or non-use?		
Yes	237	71.8
No	93	28.2
Does your school syllabus include sex education?		
Yes	99	30.0
No	201	60.9
Don't know	30	9.1
Did you get sex education in school?		
Yes	169	51.2
No	161	48.8
Did you get sex education in the house?		
Yes	205	62.1
No	125	37.9
Is there any religious/ cultural beliefs and practices that prevent the use of contraception among adolescents in your community?		
Church	54	83.1
Mosque	11	16.9

Table 4.5 presents the opinion of the respondents on why adolescents' do not use contraceptives. The result showed that majority of the respondents failed to use it due to fear of side effects, followed by religious belief, partner or family opposition while the least was the price and other reasons.

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Table 4.5: Opinion of the respondents on why adolescents' do not use contraceptives

Variables	Frequency	Percent %
Religious belief		
No	152	46.1
Yes	178	53.9
Distance to acquisition of contraceptives		
No	304	92.1
Yes	26	7.9
Attitude of service provider		
No	305	92.4
Yes	25	7.6
Partner or family opposition		
No	300	90.9
Yes	30	9.1
Side effect		
No	238	72.1
Yes	92	27.9
Lack of knowledge		
No	241	73.0
Yes	89	27.0
Infrequent sex		
No	300	90.9
Yes	30	9.1
Hard to get preferred method		
No	313	94.8
Yes	17	5.2
Too costly		
No	307	93.0
Yes	23	7.0
Counseling received on contraception		
No	294	89.1
Yes	36	10.9
Cultural belief		
No	289	87.6
Yes	41	12.4
Others		
No	320	97.0
Yes	10	3.0

4.2.3 Factors limiting and promoting the use of contraceptives among school adolescent girls

Table 6 presents the logistic analysis of factors limiting the use of contraceptives among the selected school adolescents. The results showed that out of all the factors selected in this study, Non is found to be significant.

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Table 6: Factors limiting the use of contraceptives among school adolescent girls (15-19 years)

Variables	UOR	95% CI	P-value	AOR	95% CI	P-value
Age of respondent						
15-17 Years	1.346	.837, 2.165	0.220			
18-19 years	1					
Place of schooling of the respondent						
Secondary	0.876	0.325, 2.364	0.794			
Tertiary	1					
Religion						
Christianity	1					
Islam	1.355	0.836, 2.195	0.218			
Place of residence						
Urban	1					
Rural	2.165	0.785, 5.967	0.135			
Mother' level of education						
Secondary	0.709	0.454, 1.107	0.131			
Tertiary	1					
Father's level of education						
Secondary	0.779	0.498, 1.219	0.274			
Tertiary	1					
Who you currently stay with						
Parent	1.097	0.703, 1.714	0.683			
Self	1					

Occupation of the father						
Skilled	0.889	0.559, 1.414	0.619			
Unskilled	1					
Occupation of the mother						
Skilled	0.973	0.552, 1.716	0.924			
Unskilled	1					
Knowledge						
Poor knowledge	0.918	0.449, 1.878	0.815			
Good knowledge	1					
Do you think sex education can influence contraceptive use or non-use?						
Yes	1					
No	0.852	0.517, 1.402	0.528			
Does your school syllabus include sex education?						
Yes	1.601	0.694, 3.694	0.270			
No	1.133	0.522, 2.459	0.752			
Don't know	1					
Did you get education on sex in the house?						
Yes	1					
No	1.405	0.891, 2.216	0.143			
Did you get sex education						

in school?						
Yes	1					
No	1.199	0.769, 1.870	0.424			

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The result from Table 7 shows that adolescent of age 15-17 are 1.28 less likely to use contraceptives compared to their counterpart who are 18-19 years at (0.477, 1.267 CI). The findings shows that respondent who are practicing islam are 1.2 less likely to use contraceptives compared to their counterpart who are practicing Christianity at (0.471, 1.278 CI). The findings also shows that people who are living in the rural are 2.09 less likely to use contraceptive compared to their counterpart who live in urban at (0.170, 1.346 CI). It also shows that respondent who's mother has secondary education are 1.3 more likely not to use contraceptive compared to their counterpart who have tertiary education at (0.744, 2.307 CI). Respondent who's parent had secondary education are 1.07 more likely not to use modern contraceptives compare to their counterpart who had tertiary education at (0.610, 1.911 CI). Responsent who are living with their parent are 1.06 less likely to use contraceptives compared to those that are living alone at (0.585, 1.496 CI). The result shows that respondent who's father occupation is skilled are 1.16 more likely not to use contraceptives compared to who's occupation are unskilled.

Furthermore, respondent who do not think sex education can influence contraceptive use or non-use are 1.19 more likely not use modern contraceptive compared to their counterpart who think sex education can influence contraceptive use or non-use at (0.714, 2.009 CI). Respondent who do not get sex education in school are 1.07 more likely not to use modern contraceptives compared to their counterpart who get sex education in school at (0.600, 1.943 CI). The finding also shows that respondent who do not get sex education at home are 1.57 less likely to use modern contraceptive compared to those that get sex education at home at (0.387, 1.197 CI).

Table 7: Factors promoting the use of contraceptives among school adolescent girls
(15-19 years)

Variables	UOR	95% CI	P-value	AOR	95% CI	P-value
Age of respondent						
15-17 Years	0.507	0.343, 0.749	0.01	0.777	0.477, 1.267	0.312
18-19 years	1					
Place of schooling of the respondent						
Secondary	0.700	0.266, 1.839	0.469			
Tertiary	1					
Religion						
Christianity	1					
Islam	0.564	0.431, 0.737	0.000	0.776	0.471, 1.278	0.320
Place of residence						
Urban	1					
Rural	0.594	0.472, 0.747	0.000	0.478	0.170, 1.346	0.162
Mother' level of education						
Secondary	0.736	0.537, 1.009	0.057	1.310	0.744, 2.307	0.350
Tertiary	1					
Father's level of education						
Secondary	0.711	0.509, 0.992	0.045	1.079	0.610, 1.911	0.794
Tertiary	1					
Who you currently stay with						
Parent	0.588	0.424, 0.815	0.001	0.936	0.585, 1.496	0.781
Self	1					

Occupation of the father						
Skilled	0.889	0.459, 0.968	0.033	1.161	0.715, 1.884	0.547
Unskilled	1					
Occupation of the mother						
Skilled	0.632	0.379, 1.053	0.078			
Unskilled	1					
Knowledge						
Poor knowledge	0.667	0.339, 1.311	0.240			
Good knowledge	1					
Do you think sex education can influence contraceptive use or non-use?						
Yes	1					
No	0.646	0.498, 0.838	0.001	1.198	0.714, 2.009	0.493
Does your school syllabus include sex education?						
Yes	0.478	0.313, 0.728	0.001	0.629	0.265, 1.493	0.293
No	0.675	0.509, 0.895	0.006	0.817	0.364, 1.832	0.623
Don't know	1					
Did you get education on sex in the house?						
Yes	1					
No	0.541	0.406, 0.721	0.000	0.680	0.387, 1.197	0.182
Did you get sex education						

in school?						
Yes	1					
No	0.565	0.413, 0.773	0.000	1.079	0.600, 1.943	0.799

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4.3 Discussion of Findings

4.3.1 Background Characteristics of the Respondent

This study shows that 34.2 are in the age group of 15-17 and 65.8% are in the age group of 18-19 years. This is not in line with the study carried out in Mankranso of Ahafo-Ano South District where it was observed that 52% were in the age group of 12-14 years, 42% were in the age group of 15-17% and 6% were in the age group of 18-20 years.

4.3.2 Level of knowledge of contraceptives among school adolescents girls

This finding shows that even though 46% of the respondent have used contraceptives before, yet almost 10.6% of the respondent lack adequate knowledge about contraceptives and its use. In comparative with the other studies conducted elsewhere, the knowledge of modern contraception among adolescent found in this study is 10.6%. For instance, studies in south-south Nigeria in 2020, showed that 97.4% of the respondent have good knowledge of contraceptives.

4.3.3 Choice of modern contraceptives among school adolescents girls

46% of sexually active respondents were using a modern contraceptive method of those using any method of contraception, male condoms 44.4% were most widely used modern method. This is consistent with the study carried out in South Western Nigeria, where 45.3% of sexually active respondent are using a modern method of contraception, of those using any method of contraception, male condoms 50.3% were most widely used.

This is consistent with the study carried out in South western where majority of the respondent said they received information about contraception from a health facility or health worker. Program partners have worked with health workers, discussing provider attitude towards adolescent or unmarried women's sexual activity and contraceptive use, which may be contributed to this results. When health worker are supported to provide non-judgmental good quality services, including skills strengthening and values clarification and attitude transformation, they can build trust with adolescent and serves as key sources of information and methods for them.

4.3.4 Identify factors promoting and limiting the use of contraceptives among school adolescent girls

In terms of factors influencing the use if contraceptives, it was found from previous study that sex education and contraceptive use shows that women who had no form of sex education were less likely to ever use contraceptives compared to those who had sex education. This is not surprising given that numerous studies have concluded that sex education potentially increases rates of contraceptive use at first sexual intercourse.

In line with the current findings, other studies also found that young women from rural settlement were less likely to use contraception compared to those from Urban Settlements. This has been attributed to limited awareness of contraceptive methods available to them and challenges with access to health care services

This study showed that respondent aged 15-17 years were less likely to use contraceptives compared with those aged 18-19 years. This finding corroborates the findings obtained in previous studies. The possible reason for this finding is that

respondent aged 20–24 are assumed to have a better understanding of the consequences of engaging in sexual acts without contraception compared to those aged 15–19.

Muslim religions were less likely to use modern contraceptives compared to Christians. This finding is supported by the findings of other studies carried out in Ethiopia. This may be attributed to differences in religious teachings regarding the use of contraceptives for fertility control. As found in this study, in religions where high parity is desired and fertility preferences are high, there is low likelihood of the use of modern contraceptives. Specifically for Muslim, a study by Abdi, Okal in two Muslim communities in Kenya showed that Muslim women tend to have high desire for more children due to the belief that children are a blessing from God. Thus, to receive more of the blessings God has in stock for them in the form of children, they will be less likely to use modern contraceptives. This finding could be true especially when previous studies have found high prevalence of child marriage among Muslims and other religious adherents compared to Christians

Chapter Five

Conclusion

5.1. Summary of the Findings

This study accessed knowledge and practice of contraception among adolescent girls (15-19 years) in Ogun State Nigeria. Majority of the respondents (98.8%) were within the age brackets of 18-19 years. Furthermore, majority of the respondents (94.8%) were students of various tertiary institution while a significantly high proportion of the respondents (70.6%) were Christians. More than 50% of the respondents claimed that their fathers and mothers had tertiary education. A higher proportion of the respondents (46.7%) claimed to currently stay with their parents.

Also, majority of the respondents knows exactly where to get contraceptives. Out of those who claimed to know where to get contraceptives, majority (87.7%) claimed they could get it at the pharmacy/drug store. Majority of the respondents claimed that they were fully aware that one could get pregnant from unprotected sex, while a high proportion of the respondents claimed that use of contraceptives during sex cannot provide 100% protection against pregnancy. Furthermore, a small proportion of the respondents believed that contraception is exclusively a woman's business while the remaining did not believe. About 33.8% of the respondents opined that use of contraceptives can lead to promiscuity while the remaining (66.2%) did not.

The results showed that 37.6% of the respondents claimed to have had sex before. The results further showed that a higher proportion of the respondents (68.5%) claimed to have their first sexual encounter at age 15-17 years. Furthermore, a lower proportion of the respondents (46.0%) claimed to have used a contraceptive before when

compared with those who do not, with the highest proportion of the respondents (50.9%) claiming to have used pills. However, the highest proportion of the respondents (30.5%) claimed not to currently use any contraceptive.

Majority of the respondents (81.4%) used contraceptives once in a while during sex, in which a high percentage of the respondents (59.3%) claimed to use contraceptives in order to avoid teenage pregnancy. A high proportion of the respondents (51.4%) also opined that all sexually active persons should use contraceptives. Majority of the respondents (71%) claimed not use contraceptives during their last sexual encounter. For the few who did, 58% of them claimed to have self-influenced the use of contraceptives, The results showed that majority of the respondents used condom, followed by pills while the least of the respondents' used implants. Furthermore, the most preferred method of contraception among the respondents were condom (44.8%), followed by pills (31.9%). Lastly one-half of the respondents who are sexually active claimed to find it difficult to get a contraceptive for themselves.

About 19.6% of the respondents claimed that there are some cultural/religious beliefs and practices that prevents the use of contraceptives among adolescent in their communities. These beliefs were dominantly influenced by the church (83.1% of the respondents).

Out of all factors selected in this study, Non was found to be significantly associated with factors limiting use of contraceptives. Further analysis showed that the result from Table 7 shows that adolescent of age 15-17 are 1.28 less likely to use contraceptives compared to their counterpart who are 18-19 years at (0.477, 1.267 CI). The findings shows that respondent who are practicing islam are 1.2 less likely to use

contraceptives compared to their counterpart who are practicing Christianity at (0.471, 1.278 CI). The findings also shows that people who are living in the rural are 2.09 less likely to use contraceptive compared to their counterpart who live in urban at (0.170, 1.346 CI). It also shows that respondent who's mother has secondary education are 1.3 more likely not to use contraceptive compared to their counterpart who have tertiary education at (0.744, 2.307 CI). Respondent who's parent had secondary education are 1.07 more likely not to use modern contraceptives compare to their counterpart who had tertiary education at (0.610, 1.911 CI). Responsent who are living with their parent are 1.06 less likely to use contraceptives compared to those that are living alone at (0.585, 1.496 CI). The result shows that respondent who's father occupation is skilled are 1.16 more likely not to use contraceptives compared to who's occupation are unskilled.

5.2. Conclusion

It can be concluded that awareness about contraceptives is high among the selected school adolescents. Majority of the girls have been engaging in unprotected sex at very young age. The most use or most preferred method of contraception were basically condom and pills.

It was also deduced from this study that these girls were mostly pressurized into unprotected sex by their partners. Majority of the respondents claimed that sex education can influence contraceptive use. Furthermore, a high proportion of the respondents claimed that health education was not included in their school syllabus. A high proportion of the respondents also claimed to have access to sex education both at home and at school respectively.

A fair proportion of the respondents claimed that there are some cultural/religious beliefs and practices that prevents the use of contraceptives among adolescent in their communities. These beliefs were dominantly influenced by the church (80% of the respondents). Majority of the respondents failed to use it due to fear of side effects.

Out of all the factors selected in this study, only non was found to be significantly associated with factors limiting use of contraceptives. Further analysis showed that use of contraceptives were significantly higher among those who had used contraceptives during their first sexual encounter compared with those who did not.

5.3 Recommendations

1. Sex education should be included in the syllabus especially for secondary school students
2. The results of this study suggested that sex education be included in the secondary school curriculum, with emphasis on the senior secondary school students, since this is a major phase in proximity with the undergraduate phase.
3. Health workers should improve more on their attitude when these students visit the hospital or the family planning clinic while ensuring that proper and adequate knowledge is provided to them.
4. It's also recommended that parent should be the 'best friend' of their children who will provide them with necessary confidence to relate their views, experiences to them. This result of this study may help to develop target preventive interventions for vulnerable student at risk of early pregnancy or contraction of sexually transmitted diseases.

5.4 Contribution to Knowledge

The outcome from this study has contributed to the literature on the knowledge of modern contraception and use of modern contraceptives. It has notably focus on use of contraceptives as well as the factors promoting and limiting the use of contraceptives among school adolescents. This study has contributed to understand the measure of knowledge the students have in regards to modern contraceptive usage. Findings from the study also revealed that awareness needs to be done about modern contraception

and sensitization of health workers and parents is also necessary so as to improve the sexual behavior of students since their knowledge on modern contraception is low.

5.5 Suggested Areas For Further Studies

Researchers should be committed to using the findings of this research to conduct further research among adolescents so as to improve adolescents reproductive health and also to find out other factors affecting adolescents sexual and reproductive health as youth tend to involve more in risky sexual behavior which does not only result in sexually transmitted infections but also result in unplanned pregnancies which make the adolescent prone to unsafe abortion which can in turn lead to death.

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Bibliography

Internet

&NA; “Medical Eligibility Criteria for Contraceptive Use.” *Inpharma Weekly* &NA; no. 1287 (2001): 6.

Tayo A., Akinola O., A. Adewunmi, L. Adelaja, & J. Shittu, *Contraceptive knowledge and usage amongst female secondary school students in Lagos, Southwest Nigeria Woman’s trial View project Influence Of Vitamin D Levels on In-Vitro-Fertilization View project*, *Journal of Public Health and Epidemiology*, 3, 2011, 34–37.

Abdulahi, Maryan, Othman Kakaire, & Fatuma Namusoke. “Determinants of Modern Contraceptive Use among Married Somali Women Living in Kampala; a Cross Sectional Survey.” *Reproductive Health* 17, no. 1, 2020.

Adedini, Sunday A., Jacob Wale Mobolaji, Matthew Alabi, & Adesegun O. Fatusi. “Changes in Contraceptive and Sexual Behaviours among Unmarried Young People in Nigeria: Evidence from Nationally Representative Surveys.” *PLOS ONE* 16, no. 2, 2021.

Adedini, Sunday A., Jacob Wale Mobolaji, Matthew Alabi, & Adesegun O. Fatusi. “Changes in Contraceptive and Sexual Behaviours among Unmarried Young People in Nigeria: Evidence from Nationally Representative Surveys.” *PLOS ONE* 16, no. 2, 2021.

Adedini, Sunday A., Stella Babalola, Charity Ibeawuchi, Olukunle Omotoso, Akinsewa Akiode, & Mojisola Odeku. “Role of Religious Leaders in Promoting Contraceptive Use in Nigeria: Evidence from the Nigerian Urban Reproductive Health Initiative.” *Global Health: Science and Practice* 6, no. 3 2018: 500–514.

Adedini, Sunday A., Stella Babalola, Charity Ibeawuchi, Olukunle Omotoso, Akinsewa Akiode, & Mojisola Odeku. “Role of Religious Leaders in Promoting Contraceptive Use in Nigeria: Evidence from the Nigerian Urban Reproductive Health Initiative.” *Global Health: Science and Practice* 6, no. 3, 2018: 500–514.

“Adolescents’ Contraception Continuation in Switzerland: A Prospective Observational Study.” *Swiss Medical Weekly* 147, no. 3940, 2017.

Ahinkorah, Bright Opoku, Edward Kwabena Ameyaw, & Abdul-Aziz Seidu. “Socio-Economic and Demographic Predictors of Unmet Need for Contraception

among Young Women in Sub-Saharan Africa: Evidence from Cross-Sectional Surveys.” **Reproductive Health** 17, no. 1, 2020.

Ahinkorah, Bright Opoku, Melissa Kang, Lin Perry, Fiona Brooks, & Andrew Hayen. “*Prevalence of First Adolescent Pregnancy and Its Associated Factors in Sub-Saharan Africa: A Multi-Country Analysis.*” **PLOS ONE** 16, no. 2, 2021.

Ajaero, Chukwuedozie K., Clifford Odimegwu, Ijeoma D. Ajaero, & Chidiebere A. Nwachukwu. “*Access to Mass Media Messages, and Use of Family Planning in Nigeria: A Spatio-Demographic Analysis from the 2013 DHS.*” **BMC Public Health** 16, no. 1, 2016.

Ajayi, Anthony Idowu, Sally Atieno Odunga, Clement Oduor, Ramatou Ouedraogo, Boniface Ayanbekongshie Ushie, & Yohannes Dibaba Wado. “*‘I Was Tricked’: Understanding Reasons for Unintended Pregnancy among Sexually Active Adolescent Girls.*” **Reproductive Health** 18, no. 1, 2021.

Ajzen, Icek. “*The Theory of Planned Behavior.*” **Organizational Behavior and Human Decision Processes** 50, no. 2, 1991: 179–211.

Albarracín, Dolores, Blair T. Johnson, Martin Fishbein, and Paige A. Muellerleile. “*Theories of Reasoned Action and Planned Behavior as Models of Condom Use: A Meta-Analysis.*” **Psychological Bulletin** 127, no. 1, 2001: 142–161.

Alubo, Ogoh. “*Adolescent Reproductive Health Practices in Nigeria.*” **African Journal of Reproductive Health** 5, no. 3, 2001: 109.

Alubo, Ogoh. “*Adolescent Reproductive Health Practices in Nigeria.*” **African Journal of Reproductive Health** 5, no. 3, 2001: 109.

Ankomah, Augustine, Oladosu, & Anyanti. “*Myths, Misinformation, and Communication about Family Planning and Contraceptive Use in Nigeria.*” **Open Access Journal of Contraception**, 2011: 95.

Apter, Dan. “*Contraception Options: Aspects Unique to Adolescent and Young Adult.*” **Best Practice & Research Clinical Obstetrics & Gynaecology** 48, 2018: 115–127.

Arisukwu, Ogadimma, Chisaa Onyekachi Igbolekwu, Ifunaya Efugha, Joseph Nkemakolam Nwogu, Ngozi O. Osueke, & Eyitayo Oyeyipo. “*Knowledge and Perception of Emergency Contraceptives among Adolescent Girls in Imo State, Nigeria.*” **Sexuality & Culture** 24, no. 1, 2019: 273–290.

Arisukwu, Ogadimma, Chisaa Onyekachi Igbolekwu, Ifunaya Efugha, Joseph Nkemakolam Nwogu, Ngozi O. Osueke, & Eyitayo Oyeyipo. “*Knowledge and*

Perception of Emergency Contraceptives among Adolescent Girls in Imo State, Nigeria. **Sexuality & Culture** 24, no. 1, 2019: 273–290.

Armitage, Christopher J., & Mark Conner. “Efficacy of the Theory of Planned Behaviour: A Meta-Analytic Review.” **British Journal of Social Psychology** 40, no. 4, 2001: 471–499.

Atchison, Christina Joanne, Emma Mulhern, Saidi Kapiga, Mussa Kelvin Nsanya, Emily E Crawford, Mohammed Mussa, Christian Bottomley, James R Hargreaves, & Aoife Margaret Doyle. “Evaluating the Impact of an Intervention to Increase Uptake of Modern Contraceptives among Adolescent Girls (15–19 Years) in Nigeria, Ethiopia and Tanzania: The Adolescents 360 Quasi-Experimental Study Protocol.” **BMJ Open** 8, no. 5, 2018.

Atuhaire, Shallon, Jonas Ngendakumana, Ali Galadima, Ayoub Adam, and Rodrigue B. Muderhwa. “Knowledge and Attitude towards Contraceptive Use among Adolescents in Africa: A Systematic Review.” **International Journal of Reproduction, Contraception, Obstetrics and Gynecology** 10, no. 11, 2021: 4292.

Barral, Romina L., Brenda Cartujano, Jaime Perales, Mariana Ramirez, John D. Cowden, Maria E. Trent, Megha Ramaswamy, & Sarah Finocchario Kessler. “Knowledge, Beliefs, and Attitudes about Contraception among Rural Latino Adolescents and Young Adults.” **The Journal of Rural Health** 36, no. 1, 2019: 38–47.

Barral, Romina L., Brenda Cartujano, Jaime Perales, Mariana Ramirez, John D. Cowden, Maria E. Trent, Megha Ramaswamy, and Sarah Finocchario Kessler. “Knowledge, Beliefs, and Attitudes about Contraception among Rural Latino Adolescents and Young Adults.” *The Journal of Rural Health* 36, no. 1 (2019): 38–47.

Batwala, VK, F Nuwaha, EM Mulogo, F Bagenda, F Bajunirwe, and JB Mirembe. “Contraceptive Use among in and out-of School Adolescents in Rural Southwest Uganda.” *East African Medical Journal* 83, no. 1 (2006).

Batwala, VK, F Nuwaha, EM Mulogo, F Bagenda, F Bajunirwe, and JB Mirembe. “Contraceptive Use among in and out-of School Adolescents in Rural Southwest Uganda.” *East African Medical Journal* 83, no. 1 (2006).

Bearak, Jonathan, Anna Popinchalk, Leontine Alkema, and Gilda Sedgh. “Global, Regional, and Subregional Trends in Unintended Pregnancy and Its Outcomes from 1990 to 2014: Estimates from a Bayesian Hierarchical Model.” *The Lancet Global Health* 6, no. 4 (2018).

- Bellizzi, Saverio, Giuseppe Pichierri, Leonardo Menchini, Jessica Barry, Giovanni Sotgiu, and Quique Bassat. "The Impact of Underuse of Modern Methods of Contraception among Adolescents with Unintended Pregnancies in 12 Low- and Middle-Income Countries." *Journal of Global Health* 9, no. 2 (2019).
- Berhane, Yemane, Alemayehu Worku, Dagmawit Tewahido, Nebiyou Fasil, Hanna Gulema, Amare W. Tadesse, and Semira Abdelmenan. "Adolescent Girls' Agency Significantly Correlates with Favorable Social Norms in Ethiopia— Implications for Improving Sexual and Reproductive Health of Young Adolescents." *Journal of Adolescent Health* 64, no. 4 (2019).
- Bijlmakers, Leon, Billie de Haas, and Anny Peters. "The Political Dimension of Sexual Rights." *Reproductive Health* 15, no. 1 (2018).
- Bijlmakers, Leon, Billie de Haas, and Anny Peters. "The Political Dimension of Sexual Rights." *Reproductive Health* 15, no. 1 (2018).
- Bolarinwa, Obasanjo Afolabi, Zemenu Tadesse Tessema, James Boadu Frimpong, Abdul-Aziz Seidu, and Bright Opoku Ahinkorah. "Spatial Distribution and Factors Associated with Modern Contraceptive Use among Women of Reproductive Age in Nigeria: A Multilevel Analysis." *PLOS ONE* 16, no. 12 (2021).
- Borges, Ana Luiza, Elizabeth Fujimori, Maria Cristina Kuschnir, Christiane Borges Chofakian, Ana Júlia Moraes, George Dantas Azevedo, Karine Ferreira Santos, and Mauricio Teixeira Vasconcellos. "Erica: Sexual Initiation and Contraception in Brazilian Adolescents." *Revista de Saúde Pública* 50, no. suppl 1 (2016).
- Bradley, Sarah E.K., and John B. Casterline. "Understanding Unmet Need: History, Theory, and Measurement." *Studies in Family Planning* 45, no. 2 (2014): 123–150.
- Buckingham, Pip, Jessica E. Moulton, Asvini K. Subasinghe, Natalie Amos, & Danielle Mazza. "Acceptability of Immediate Postpartum and Post-Abortion Long-Acting Reversible Contraception Provision to Adolescents: A Systematic Review." *Acta Obstetrica et Gynecologica Scandinavica* 100, no. 4, 2021: 629–640.
- Bukuluki, Paul, Peter Kisaakye, Maxime Houinato, Adekemi Ndieli, Evelyn Letiyo, & Dan Bazira. "Social Norms, Attitudes and Access to Modern Contraception for Adolescent Girls in Six Districts in Uganda." *BMC Health Services Research* 21, no. 1, 2021.
- Burke, Susan M. "Texting as a Strategy to Increase Contraception Use Compliance in Adolescent Females." *Journal of Pediatric Nursing* 43, 2018: 134–135.

- Casey, Sara E., Meghan C. Gallagher, Jessica Kakesa, Anushka Kalyanpur, Jean-Baptiste Muselemu, Raoza Vololona Rafanoharana, & Nathaly Spilotros. “*Contraceptive Use among Adolescent and Young Women in North and South Kivu, Democratic Republic of the Congo: A Cross-Sectional Population-Based Survey.*” **PLOS Medicine** 17, no. 3, 2020.
- Champion, Victoria L., Patrick O. Monahan, Jeffery K. Springston, Kathleen Russell, Terrell W. Zollinger, Robert M. Saywell, and Maltie Maraj. “*Measuring Mammography and Breast Cancer Beliefs in African American Women.*” **Journal of Health Psychology** 13, no. 6, 2008: 827–837.
- Chandra-Mouli, Venkatraman, Donna R McCarraher, Sharon J Phillips, Nancy E Williamson, & Gwyn Hainsworth. “*Contraception for Adolescents in Low and Middle Income Countries: Needs, Barriers, and Access.*” **Reproductive Health** 11, no. 1, 2014.
- Chandra-Mouli, Venkatraman, Marina Plesons, Emily Sullivan, Lianne Gonsalves, and Lale Say. “*38.8 Million Additional Modern Contraceptive Users: This, in Fact, Is ‘a Never-before Opportunity to Strengthen Investment and Action on Adolescent Contraception.’*” **Reproductive Health** 15, no. 1, 2018.
- Chandra-Mouli, Venkatraman, Pooja S. Parameshwar, Matti Parry, Catherine Lane, Gwyn Hainsworth, Sylvia Wong, Lindsay Menard-Freeman, “*A Never-before Opportunity to Strengthen Investment and Action on Adolescent Contraception, and What We Must Do to Make Full Use of It.*” **Reproductive Health** 14, no. 1, 2017.
- Chandra-Mouli, Venkatraman, Pooja S. Parameshwar, Matti Parry, Catherine Lane, Gwyn Hainsworth, Sylvia Wong, Lindsay Menard-Freeman, “*A Never-before Opportunity to Strengthen Investment and Action on Adolescent Contraception, and What We Must Do to Make Full Use of It.*” **Reproductive Health** 14, no. 1, 2017.
- Chotchoungchatchai, Somtanuek, Aniqah Islam Marshall, Woranan Witthayapipopsakul, Warisa Panichkriangkrai, Walaiporn Patcharanarumol, and Viroj Tangcharoensathien. “*Primary Health Care and Sustainable Development Goals.*” **Bulletin of the World Health Organization** 98, no. 11, 2020: 792–800.
- Cicerchia, Gaia, Lawrence D. Reid, and Diana N. Carvajal. “*Contraceptive Decision-Making and the Importance of Side Effect Information among a Sample of Latinas.*” **Women’s Health Reports** 3, no. 1. 2022: 78–84.
- Cordova-Pozo, Kathya, Sarah Borg, Andrea J. Hoopes, Alma Virginia Camacho-Hubner, Fanny Corrales-Ríos, Adriane Salinas-Bomfim, & Venkatraman Chandra-Mouli. “*How Do National Contraception Laws and Policies Address*

the Contraceptive Needs of Adolescents in Paraguay?” **Reproductive Health** 14, no. 1, 2017.

- Crawford, Emily E., Christina J. Atchison, Yewande P. Ajayi, & Aoife M. Doyle. “*Modern Contraceptive Use among Unmarried Girls Aged 15–19 Years in South Western Nigeria: Results from a Cross-Sectional Baseline Survey for the Adolescent 360 (A360) Impact Evaluation.*” **Reproductive Health** 18, no. 1 2021.
- Cwiak, Carrie, Brandon Howard, Jennifer Hsieh, Nancy Ricciotti, & Gina S. Sucato. “*Sexual and Contraceptive Behaviors among Adolescents Requesting Emergency Contraception.*” **Journal of Pediatric and Adolescent Gynecology** 29, no. 6, 2016: 643–647.
- Daley, Alison Moriarty. “*What Influences Adolescents' Contraceptive Decision-Making? A Meta-Ethnography.*” **Journal of Pediatric Nursing** 29, no. 6, 2014: 614–632.
- de Vargas Nunes Coll, Carolina, Fernanda Ewerling, Franciele Hellwig, and Aluísio Jardim de Barros. “*Contraception in Adolescence: The Influence of Parity and Marital Status on Contraceptive Use in 73 Low-and Middle-Income Countries.*” **Reproductive Health** 16, no. 1, 2019.
- de Vargas Nunes Coll, Carolina, Fernanda Ewerling, Franciele Hellwig, & Aluísio Jardim de Barros. “*Contraception in Adolescence: The Influence of Parity and Marital Status on Contraceptive Use in 73 Low-and Middle-Income Countries.*” **Reproductive Health** 16, no. 1, 2019.
- Deitch, Julianne, & Lindsay Stark. “*Adolescent Demand for Contraception and Family Planning Services in Low- and Middle-Income Countries: A Systematic Review.*” **Global Public Health** 14, no. 9, 2019: 1316–1334.
- Deitch, Julianne, and Lindsay Stark. “*Adolescent Demand for Contraception and Family Planning Services in Low- and Middle-Income Countries: A Systematic Review.*” **Global Public Health** 14, no. 9, 2019: 1316–1334.
- Development, Department for International. “*Evidence on Family Planning Use in Young People of Tanzania.*” **GOV.UK**. GOV.UK, May 15, 2019. Last modified May 15, 2019. Accessed November 2, 2022. <https://www.gov.uk/research-for-development-outputs/evidence-on-family-planning-use-in-young-people-of-tanzania>.
- “The DHS Program.” *The DHS Program - Ethiopia: Standard DHS, 2021*. Accessed November 2, 2022. <https://dhsprogram.com/methodology/survey/survey-display-586.cfm>.

- Dombola, Gift Mtawali, Wanangwa Chimwaza Manda, and Effie Chipeta. "Factors Influencing Contraceptive Decision Making and Use among Young Adolescents in Urban Lilongwe, Malawi: A Qualitative Study." *Reproductive Health* 18, no. 1 (2021).
- Dut, Raziye, & Ragıp Atakan Al. "A Brief Study on the Knowledge and Choice of Contraception Methods in Married Adolescent Girls." **International Journal of Adolescent Medicine and Health** 33, no. 2, 2019.
- Baku E. A. *Influence of knowledge, attitude and beliefs on adolescent contraceptive use in greater Accra region, Ghana*, **West African Journal of Nursing**, 2, 2016, 1–10.
- Envuladu E. A., V. De Kwaak Anke, P. Zwanikken, & A. I. Zoakah, *Sexual and Reproductive Health Challenges of Adolescent Males and Females in some Communities of Plateau State Nigeria*, **International Journal of Psychology and Behavioral Sciences**, 7, 2017, 55–60.
- Envuladu E. A., V. De Kwaak Anke, P. Zwanikken, & A. I. Zoakah, *Sexual and Reproductive Health Challenges of Adolescent Males and Females in some Communities of Plateau State Nigeria*, **International Journal of Psychology and Behavioral Sciences**, 7, 2017, 55–60.
- Eli, S., D. G. Kalio, K. Okagua, C. E. Enyindah, & D. S. Abam. "Access to Contraception amongst Female Adolescents: Rivers State Study." **Journal of Advances in Medicine and Medical Research** 2020: 91–92.
- Eniojukan Joshua F, Ofulue Ijeoma, & Okinedo Prince O. "Knowledge, Perception and Practice of Contraception among Staff and Students in a University Community in Delta State, Nigeria." **Pharmaceutical and Biosciences Journal** 2015: 71–81.
- Ernawati, Hery, Anni Fithriyatul Mas'udah, Ova Emilia, Lely Lusmilasari, Laily Isroin, & Metti Verawati. "The Use of Contraception and Adolescent Fertility in Indonesia." **Open Access Macedonian Journal of Medical Sciences** 9, no. G, 2021: 168–171.
- Ernawati, Hery, Anni Fithriyatul Mas'udah, Ova Emilia, Lely Lusmilasari, Laily Isroin, & Metti Verawati. "The Use of Contraception and Adolescent Fertility in Indonesia." **Open Access Macedonian Journal of Medical Sciences** 9, no. G 2021: 168–171.
- Ezenwaka, Uchenna, Chinyere Mbachu, Nkoli Ezumah, Irene Eze, Chibuike Agu, Ifunanya Agu, & Obinna Onwujekwe. "Exploring Factors Constraining Utilization of Contraceptive Services among Adolescents in Southeast Nigeria:

An Application of the Socio-Ecological Model.” **BMC Public Health** 20, no. 1 2020.

- Folayan, Morenike Oluwatoyin, Morolake Odetoyinbo, & Abigail Harrison. “*Differences in Use of Contraception by Age, Sex and HIV Status of 10–19-Year-Old Adolescents in Nigeria.*” **International Journal of Adolescent Medicine and Health** 29, no. 4, 2015.
- French, Rebecca S, Rebecca Geary, Kyle Jones, Anna Glasier, Catherine H Mercer, Jessica Datta, Wendy Macdowall, Melissa Palmer, Anne M Johnson, & Kaye Wellings. “*Where Do Women and Men in Britain Obtain Contraception? Findings from the Third National Survey of Sexual Attitudes and Lifestyles (NATSAL-3).*” **BMJ Sexual & Reproductive Health** 44, no. 1, 2017: 16–26.
- Funmito Omolola, Fehintola, Fehintola Akintunde Olusegun, Ogunlaja Olumuyiwa A, Akinola Samuel Egun, Awotunde Timothy Olufemi, Ogunlaja Idowu Paulin, & Ogundele Olorunfemi Akinbode. “*Prevalence and Predictors of Early Sexual Debut among Adolescents in Ogbomoso, Nigeria.*” **American Journal of Public Health Research** 6, no. 3 2018: 148–154.
- Funmito Omolola, Fehintola, Fehintola Akintunde Olusegun, Ogunlaja Olumuyiwa A, Akinola Samuel Egun, Awotunde Timothy Olufemi, Ogunlaja Idowu Paulin, & Ogundele Olorunfemi Akinbode. “*Prevalence and Predictors of Early Sexual Debut among Adolescents in Ogbomoso, Nigeria.*” **American Journal of Public Health Research** 6, no. 3, 2018: 148–154.
- G. K. Nalwadda, *Contraceptive use among young people in Uganda: Exploration of obstacles, enablers, and quality of services, Makerere University College of Health Sciences, 2012.*
- Glanz, Karen, & Donald B. Bishop. “*The Role of Behavioral Science Theory in Development and Implementation of Public Health Interventions.*” **Annual Review of Public Health** 31, no. 1, 2010: 399–418.
- Grant-Maidment, Tallulah, Katharina Kranzer, & Rashida A. Ferrand. “*The Effect of Integration of Family Planning into HIV Services on Contraceptive Use among Women Accessing HIV Services in Low and Middle-Income Countries: A Systematic Review.*” **Frontiers in Global Women's Health** 3, 2022.
- Griffin, L., S. Ryan, C. Hackett, & B. Ramsay. “*The Use of Methotrexate in Adolescents: Contraception, Confidentiality and Consent.*” **British Journal of Dermatology** 178, no. 4, 2018: 987–988.
- Hackman, Christine, & Adam Knowlden. “*Theory of Reasoned Action and Theory of Planned Behavior-Based Dietary Interventions in Adolescents and Young*

Adults: A Systematic Review.” **Adolescent Health, Medicine and Therapeutics** 2014: 101.

Hall, Victoria, Carlota Medus, George Wahl, Alida Sorenson, Melanie Orth, Monica Santovenia, Erin Burdette, and Kirk Smith. “*Notes from the Field: Vibrio Cholerae Serogroup O1, Serotype Inaba — Minnesota, August 2016.*” **MMWR. Morbidity and Mortality Weekly Report** 66, no. 36, 2017: 961–962.

Hardeman, Wendy, Marie Johnston, Derek Johnston, Debbie Bonetti, Nicholas Wareham, & Ann Louise Kinmonth. “*Application of the Theory of Planned Behaviour in Behaviour Change Interventions: A Systematic Review.*” **Psychology & Health** 17, no. 2, 2002: 123–158.

I. Ngerageze, *Utilization of contraceptive methods among secondary school female adolescents at a selected secondary school in Rwamagana district, Rwanda.* 2019.

I. Ngerageze, *Utilization of contraceptive methods among secondary school female adolescents at a selected secondary school in Rwamagana district, Rwanda.* 2019.

Iyanda, Ayodeji Emmanuel, Barbara J. Dinkins, Tolulope Osayomi, Temitope Joshua Adeusi, Yongmei Lu, & Joseph R. Oppong. “*Fertility Knowledge, Contraceptive Use and Unintentional Pregnancy in 29 African Countries: A Cross-Sectional Study.*” **International Journal of Public Health** 65, no. 4 2020: 445–455.

J. Birchall, *Early marriage, pregnancy and girl child school dropout, Knowledge, evidence and learning for development*, 2, 2018, 1–15.

J. Birchall, *Early marriage, pregnancy and girl child school dropout, Knowledge, evidence and learning for development*, 2, 2018, 1–15.

J. E. Darroch, V. Woog, A. Bankole, & L. S. Ashford, *Adding it up: costs and benefits of meeting the contraceptive needs of adolescents*, 2016.

J. Smith, *Improving adolescent access to contraception in sub-Saharan Africa: A review of the evidence*, **African Journal of Reproductive Health**, 24, 2020, 152–164.

J. Smith, *Improving adolescent access to contraception in sub-Saharan Africa: A review of the evidence*, **African Journal of Reproductive Health**, 24, 2020, 152–164.

- Johnson, Ofonime, & Ikobong Ekong. “*Knowledge, Attitude and Practice of Family Planning among Women in a Rural Community in Southern Nigeria.*” *British Journal of Medicine and Medical Research* 12, no. 2, 2016: 1–8.
- Johnson, Ofonime, and Ikobong Ekong. “Knowledge, Attitude and Practice of Family Planning among Women in a Rural Community in Southern Nigeria.” *British Journal of Medicine and Medical Research* 12, no. 2 (2016): 1–8.
- K. Daniels, J. Daugherty, & J. Jones, Current contraceptive status among women aged 15-44: United States, 2011-2013, NCHS data brief, 2014, 1–8.
- K. Perehudoff, D. Kibira, E. Wuyts, C. Pericas, J. Omwoha, H. A. van den Ham, A. K. Mantel-Teeuwisse, & K. Michielsen, *A comparative human rights analysis of laws and policies for adolescent contraception in Uganda and Kenya*, *Reproductive Health*, 19, 2022, 1–14
- K. Tull, Evidence on family planning use in young people of Tanzania, 2019, 16.
- Kalamar, Amanda M., Özge Tunçalp, and Michelle J. Hindin. “*Developing Strategies to Address Contraceptive Needs of Adolescents: Exploring Patterns of Use among Sexually Active Adolescents in 46 Low- and Middle-Income Countries.*” *Contraception* 98, no. 1, 2018: 36–40.
- Kamuyango, Asantesana, Wen-Hsuan Hou, and Chung-Yi Li. “*Trends and Contributing Factors to Contraceptive Use in Kenya: A Large Population-Based Survey 1989 to 2014.*” *International Journal of Environmental Research and Public Health* 17, no. 19, 2020: 7065.
- Kantorová, Vladimíra, Mark C. Wheldon, Aisha N. Dasgupta, Philipp Ueffing, & Helena Cruz Castanheira. “*Contraceptive Use and Needs among Adolescent Women Aged 15–19: Regional and Global Estimates and Projections from 1990 to 2030 from a Bayesian Hierarchical Modelling Study.*” *PLOS ONE* 16, no. 3 2021.
- Kantorová, Vladimíra, Mark C. Wheldon, Aisha N. Dasgupta, Philipp Ueffing, & Helena Cruz Castanheira. “*Contraceptive Use and Needs among Adolescent Women Aged 15–19: Regional and Global Estimates and Projections from 1990 to 2030 from a Bayesian Hierarchical Modelling Study.*” *PLOS ONE* 16, no. 3 2021.
- Kara, Waheeda Shokat, Magreth Benedicto, & Jing Mao. “*Knowledge, Attitude, and Practice of Contraception Methods among Female Undergraduates in Dodoma, Tanzania.*” *Cureus* 2019.

- Kungu, Wambui, Anne Khasakhala, & Alfred Agwanda. "Use of Long-Acting Reversible Contraception among Adolescents and Young Women in Kenya." **PLOS ONE** 15, no. 11, 2020.
- Kungu, Wambui, Anne Khasakhala, and Alfred Agwanda. "Use of Long-Acting Reversible Contraception among Adolescents and Young Women in Kenya." **PLOS ONE** 15, no. 11, 2020.
- Kwon, Eunji, Myungsuk Kang, & Heejung Kim. "Factors Associated with Using Contraception among Sexually Active Adolescents in Monocultural and Multicultural Families." **The Journal of School Nursing** 37, no. 6, 2020: 460–469.
- Li, Zhihui, George Patton, Farnaz Sabet, Zhiying Zhou, S. V. Subramanian, and Chunling Lu. "Contraceptive Use in Adolescent Girls and Adult Women in Low- and Middle-Income Countries." *JAMA Network Open* 3, no. 2 (2020).
- Li, Zhihui, George Patton, Farnaz Sabet, Zhiying Zhou, S. V. Subramanian, and Chunling Lu. "Contraceptive Use in Adolescent Girls and Adult Women in Low- and Middle-Income Countries." *JAMA Network Open* 3, no. 2 (2020).
- Lompo, Miaba Louise, Jean-Louis Bago, & Wamadini Souratie. "Estimating the Impact of School Education on Contraception Use among Adolescents Aged 15–19 in Burkina Faso and Nigeria: Evidence from a Heckman Two-Step Correction Model." **Journal of Education and Learning** 7, no. 5 (2018): 31.
- M. J. Griffin, Health belief model, social support, and intent to screen for colorectal cancer in older African American men, The University of North Carolina at Greensboro, 2011.
- Maly, Christina, Katherine A. McClendon, Joy Noel Baumgartner, Neema Nakyanjo, William George Ddaaki, David Serwadda, Fred Kakaire Nalugoda, Maria J. Wawer, Erika Bonnevie, & Jennifer A. Wagman. "Perceptions of Adolescent Pregnancy among Teenage Girls in Rakai, Uganda." **Global Qualitative Nursing Research** 4, 2017: 233339361772055.
- Mathewos, Samuel, and Aleme Mekuria. "Teenage Pregnancy and Its Associated Factors among School Adolescents of Arba Minch Town, Southern Ethiopia." **Ethiopian Journal of Health Sciences** 28, no. 3, 2018: 287.
- Mathewos, Samuel, & Aleme Mekuria. "Teenage Pregnancy and Its Associated Factors among School Adolescents of Arba Minch Town, Southern Ethiopia." **Ethiopian Journal of Health Sciences** 28, no. 3, 2018: 287.
- Mbachu, Chinyere Ojiugo, Ifunanya Clara Agu, Chinonso Obayi, Irene Eze, Nkoli Ezumah, & Obinna Onwujekwe. "Beliefs and Misconceptions about

Contraception and Condom Use among Adolescents in South-East Nigeria.” **Reproductive Health** 18, no. 1, 2021.

McCurdy, Rebekah J, Xuezhi Jiang, & Peter F Schnatz. “*Long-Acting Reversible Contraception in Adolescents in Sub-Saharan Africa: Evidence from Demographic and Health Surveys.*” **The European Journal of Contraception & Reproductive Health Care** 23, no. 5, 2018: 357–364.

McCurdy, Rebekah J, Xuezhi Jiang, & Peter F Schnatz. “*Long-Acting Reversible Contraception in Adolescents in Sub-Saharan Africa: Evidence from Demographic and Health Surveys.*” **The European Journal of Contraception & Reproductive Health Care** 23, no. 5, 2018: 357–364.

Meh, Catherine, Amardeep Thind, Bridget Ryan, & Amanda Terry. “*Levels and Determinants of Maternal Mortality in Northern and Southern Nigeria.*” **BMC Pregnancy and Childbirth** 19, no. 1, 2019.

Melesse, Dessalegn Y, Martin K Mutua, Allysha Choudhury, Yohannes D Wado, Cheikh M Faye, Sarah Neal, and Ties Boerma. “*Adolescent Sexual and Reproductive Health in Sub-Saharan Africa: Who Is Left behind?*” **BMJ Global Health** 5, no. 1, 2020.

Melesse, Dessalegn Y, Martin K Mutua, Allysha Choudhury, Yohannes D Wado, Cheikh M Faye, Sarah Neal, and Ties Boerma. “*Adolescent Sexual and Reproductive Health in Sub-Saharan Africa: Who Is Left behind?*” **BMJ Global Health** 5, no. 1, 2020.

Mohammed, S. B., Y. Ya’aba, M. Njoku, M. C. Abarike, K. S. Izebe, M. N. Ezeunala, M. Usoroh, et al. “*Prevalence of HIV among Adolescent Children in Abuja, the Federal Capital Territory, Abuja Nigeria.*” **Open Journal of Epidemiology** 09, no. 04, 2019: 321–328.

Mohammed, S. B., Y. Ya’aba, M. Njoku, M. C. Abarike, K. S. Izebe, M. N. Ezeunala, M. Usoroh, “*Prevalence of HIV among Adolescent Children in Abuja, the Federal Capital Territory, Abuja Nigeria.*” **Open Journal of Epidemiology** 09, no. 04, 2019: 321–328.

Moreno, Megan A. “*Long-Acting Reversible Contraception for Adolescents.*” **JAMA Pediatrics** 170, no. 5, 2016: 516.

Munakampe, Margarate Nzala, Joseph Mumba Zulu, and Charles Michelo. “*Contraception and Abortion Knowledge, Attitudes and Practices among Adolescents from Low and Middle-Income Countries: A Systematic Review.*” **BMC Health Services Research** 18, no. 1, 2018.

- Murphy, Molly K., Cindy Stoffel, Meghan Nolan, and Sadia Haider. "Interdependent Barriers to Providing Adolescents with Long-Acting Reversible Contraception: Qualitative Insights from Providers." **Journal of Pediatric and Adolescent Gynecology** 29, no. 5, 2016: 436–442.
- Mwaisaka, Jefferson, Yohannes Dibaba Wado, Ramatou Ouedraogo, Clement Oduor, Helen Habib, Joan Njagi, and Martin W. Bangha. "Those Are Things for Married People' Exploring Parents'/Adults' and Adolescents' Perspectives on Contraceptives in Narok and Homa Bay Counties, Kenya." **Reproductive Health** 18, no. 1, 2021.
- N. Rajoo, *Adolescents, contraception and termination of pregnancy, Obstetrics and Gynaecology Forum*, 28, 2018, 19–22.
- Nalukwago, Judith, Rik Crutzen, Bart van den Borne, Paul Bukuluki, Leonard Bufumbo, Holly Burke, Samuel Field, Amos Zikusooka, Anne Fiedler, & Jane Alaii. "Socio-Cognitive Factors Associated with Condom Use, Multiple Sexual Partnerships, and Contraception Use among Sexually-Active Adolescent Girls in Uganda." **Global Journal of Health Science** 10, no. 8, 2018: 41.
- Nalwadda, Gorrette, Florence Mirembe, Josaphat Byamugisha, & Elisabeth Faxelid. "Persistent High Fertility in Uganda: Young People Recount Obstacles and Enabling Factors to Use of Contraceptives." **BMC Public Health** 10, no. 1 2010.
- Nnebue, CC, UC Chimah, TO Lawoyin, & AL Ilika. "Contraceptive Knowledge and Practice among Senior Secondary Schools Students in Military Barracks in Nigeria." **Nigerian Journal of Clinical Practice** 19, no. 2, 2016: 182.
- Ntshebe, oleosi. "Contraceptive Decisions & HIV/AIDS Concerns among Married Couples in Malawi." **Journal of Biosocial Science** 43, no. 3, 2011: 329–343.
- Nunes, Filipa Raquel, Fabiane Amaral Neves, Fernanda da Geraldés, and Maria Fernanda Águas Lopes. "Contraception in Adolescents with Intellectual Disability." **The European Journal of Contraception & Reproductive Health Care** 22, no. 6, 2017: 401–406.
- Okigbo, Chinelo C., Ilene S. Speizer, Marisa E. Domino, Sian L. Curtis, Carolyn T. Halpern, & Jean C. Fotso. "Gender Norms and Modern Contraceptive Use in Urban Nigeria: A Multilevel Longitudinal Study." **BMC Women's Health** 18, no. 1, 2018.
- Olonade, Olawale, Tomike I. Olawande, Oluwatobi Joseph Alabi, and David Imhonopi. "Maternal Mortality and Maternal Health Care in Nigeria: Implications for Socio-Economic Development." **Open Access Macedonian Journal of Medical Sciences** 7, no. 5, 2019: 849–855.

- Olonade, Olawale, Tomike I. Olawande, Oluwatobi Joseph Alabi, & David Imhonopi. "Maternal Mortality and Maternal Health Care in Nigeria: Implications for Socio-Economic Development." **Open Access Macedonian Journal of Medical Sciences** 7, no. 5, 2019: 849–855.
- Onasoga, Olayinka. "Adolescents' Knowledge, Attitude and Utilization of Emergency Contraceptive Pills in Nigeria's Niger Delta Region." **International Journal of MCH and AIDS IJMA** 5, no. 1, 2016.
- Ott, Mary A., Gina S. Sucato, Paula K. Braverman, William P. Adelman, Elizabeth M. Alderman, Cora C. Breuner, David A. Levine, Arik V. Marcell, and Rebecca F. O'Brien. "Contraception for Adolescents." *Pediatrics* 134, no. 4 (2014).
- Peltzer, Karl. "Early Sexual Debut and Associated Factors among in-School Adolescents in Eight African Countries." *Acta Paediatrica* 99, no. 8 (2010): 1242–1247.
- Perehudoff, Katrina, Denis Kibira, Elke Wuyts, Carles Pericas, Joyce Omwoha, Hendrika A. van den Ham, Aukje K. Mantel-Teeuwisse, and Kristien Michiels. "A Comparative Human Rights Analysis of Laws and Policies for Adolescent Contraception in Uganda and Kenya." *Reproductive Health* 19, no. 1 (2022).
- Pettifor, Audrey, Katie O'Brien, Catherine MacPhail, William C. Miller, & Helen Rees. "Early Coital Debut and Associated HIV Risk Factors among Young Women and Men in South Africa." **International Perspectives on Sexual and Reproductive Health** 35, no. 02, 2009: 82–90.
- Pitts, Sarah, Carly E. Milliren, Claudia Borzutzky, Sofya Maslyanskaya, Grace Berg, & Amy D. DiVasta. "Adolescent/Young Adult Long-Acting Reversible Contraception: Experience from a Multisite Adolescent Medicine Collaborative." **The Journal of Pediatrics** 243, 2022: 158–166.
- Polis, Chelsea B., Sarah E.K. Bradley, Akinrinola Bankole, Tsuyoshi Onda, Trevor Croft, & Susheela Singh. "Typical-Use Contraceptive Failure Rates in 43 Countries with Demographic and Health Survey Data: Summary of a Detailed Report." **Contraception** 94, no. 1, 2016: 11–17.
- Renjhen, Prachi, Ashwini Kumar, Sanjay Pattanshetty, Afrin Sagir, & Charmaine Minoli Samarasinghe. "A Study on Knowledge, Attitude and Practice of Contraception among College Students in Sikkim, India." **Journal of the Turkish German Gynecological Association** 11, no. 2, 2010: 78–81.
- Riley, Taylor, Elizabeth A. Sully, Naomi Lince-Deroche, Lauren Firestein, Rachel Murro, Ann Biddlecom, & Jacqueline E. Darroch. "Adding It up: Investing in Sexual and Reproductive Health 2019—Methodology Report" (2020).

- Robbins, Cynthia L., & Mary A. Ott. "Contraception Options and Provision to Adolescents." **Minerva Pediatrics** 69, no. 5, 2017.
- Rodić, Ljiljana, & David Wilson. "Resolving Governance Issues to Achieve Priority Sustainable Development Goals Related to Solid Waste Management in Developing Countries." **Sustainability** 9, no. 3, 2017: 404.
- Rodić, Ljiljana, & David Wilson. "Resolving Governance Issues to Achieve Priority Sustainable Development Goals Related to Solid Waste Management in Developing Countries." **Sustainability** 9, no. 3, 2017: 404.
- Rome, Ellen S., and Veronica Issac. "Sometimes You Do Get a Second Chance." **Pediatric Clinics of North America** 64, no. 2, 2017: 371–380.
- Ryder, Norman B. "Contraceptive Failure in the United States." **Family Planning Perspectives** 5, no. 3, 1973: 133.
- S. Kapira, Assessing Barriers of Contraceptive Uptake among Adolescent Girls in a Rural District of Malawi, ProQuest Dissertations and Theses, 2021, 67.
- S. Kapira, Assessing Barriers of Contraceptive Uptake among Adolescent Girls in a Rural District of Malawi, ProQuest Dissertations and Theses, 2021, 67.
- Sabo, Aliyu Sokoto, Lawali Yakubu, Aliyu Alkammawa Luba, Samira L. Ya`u, A. T. Bakare, Muhammad Fatima, Isah M. Zayyanu, & Musa A. Zulkiflu. "Influence of Socio-Demographic Variables on the Choice of Contraceptives among Women Attending ANC Unit at Specialist Hospital Sokoto, Sokoto State, Nigeria." **International Journal of Reproduction, Contraception, Obstetrics and Gynecology** 7, no. 7, 2018: 2565.
- Sabo, Aliyu Sokoto, Lawali Yakubu, Aliyu Alkammawa Luba, Samira L. Ya`u, A. T. Bakare, Muhammad Fatima, Isah M. Zayyanu, & Musa A. Zulkiflu. "Influence of Socio-Demographic Variables on the Choice of Contraceptives among Women Attending ANC Unit at Specialist Hospital Sokoto, Sokoto State, Nigeria." **International Journal of Reproduction, Contraception, Obstetrics and Gynecology** 7, no. 7, 2018: 2565.
- Sedgh, Gilda, Lawrence B. Finer, Akinrinola Bankole, Michelle A. Eilers, & Susheela Singh. "Adolescent Pregnancy, Birth, and Abortion Rates across Countries: Levels and Recent Trends." **Journal of Adolescent Health** 56, no. 2, 2015: 223–230.
- Sedlecky, Katarina, & Zoran Stanković. "Contraception for Adolescents after Abortion." **The European Journal of Contraception & Reproductive Health Care** 21, no. 1, 2015: 4–14.

- Semachew Kasa, Ayele, Mulu Tarekegn, & Nebyat Embiale. “*Knowledge, Attitude and Practice towards Family Planning among Reproductive Age Women in a Resource Limited Settings of Northwest Ethiopia.*” **BMC Research Notes** 11, no. 1, 2018.
- Shoupe, Donna. “*LARC Methods: Entering a New Age of Contraception and Reproductive Health.*” **Contraception and Reproductive Medicine** 1, no. 1 2016.
- Singh, Ijyaa, Ankita Shukla, Jissa Vinoda Thulaseedharan, and Gurpreet Singh. “*Contraception for Married Adolescents (15–19 Years) in India: Insights from the National Family Health Survey-4 (NFHS-4).*” **Reproductive Health** 18, no. 1, 2021.
- Sobngwi-Tambekou, Joëlle L., Marthe Tsague-Agnoux, Léopold K. Fezeu, and Flavien Ndonko. “*Teenage Childbearing and School Dropout in a Sample of 18,791 Single Mothers in Cameroon.*” **Reproductive Health** 19, no. 1, 2022.
- Soper, Katie, & Giuseppina Di Meglio. “*Accessibility of Emergency Contraception for Adolescents in Quebec Community Pharmacies.*” **Paediatrics & Child Health** 25, no. 6, 2019: 385–388.
- Srikanthan, Amirtha, & Robert L. Reid. “*Religious and Cultural Influences on Contraception.*” **Journal of Obstetrics and Gynaecology Canada** 30, no. 2 2008: 129–137.
- Suresh, Sunitha C., Lauren Questell, & Carolyn Sufrin. “*Access to Reproductive Health Care in Juvenile Justice Facilities.*” **Journal of Pediatric and Adolescent Gynecology** 33, no. 3, 2020: 296–301.
- T. Grant-Maidment, K. Kranzer, & R. A. Ferrand, *The Effect of Integration of Family Planning Into HIV Services on Contraceptive Use Among Women Accessing HIV Services in Low and Middle-Income Countries: A Systematic Review*, **Frontiers in Global Women’s Health**, 3, 2022, 1–12.
- Tarek Tawfik Amin Follow. *Research Question, Criteria, Formulation, and Relation to Research De...* Accessed November 2, 2022.
<https://www.slideshare.net/TarekTawfikAmin/research-question-criteria-formulation-and-relation-to-research-designs>.
- Tarek Tawfik Amin Follow. *Research Question, Criteria, Formulation, and Relation to Research De...* Accessed November 2, 2022.
<https://www.slideshare.net/TarekTawfikAmin/research-question-criteria-formulation-and-relation-to-research-designs>.

- Tarkang, Elvis E. “*Perceived Family Support Regarding Condom Use and Condom Use among Secondary School Female Students in Limbe Urban City of Cameroon.*” **BMC Public Health** 14, no. 1, 2014.
- U. Ezekoma, *The High Rate of Maternal Mortality and Morbidity in Nigeria: A radical call to save Nigerian mothers. To the Federal Ministry of Health, Federal Republic of Nigeria The States’ Commissioner for Health*, 2020.
- U. Ezenwaka, C. Mbachu, C. Okeke, I. Agu, N. Ezumah, & O. Onwujekwe, *Socio-demographic and economic determinants of awareness and use of contraceptives among adolescents in Ebonyi State, South-east, Nigeria*, **African Journal of Reproductive Health**, 25, 2021, 22.
- U. Ezenwaka, C. Mbachu, C. Okeke, I. Agu, N. Ezumah, & O. Onwujekwe, *Socio-demographic and economic determinants of awareness and use of contraceptives among adolescents in Ebonyi State, South-east, Nigeria*, *African Journal of Reproductive Health*, 25, 2021, 22.
- “UN Sustainable Development Goals Report 2017: United Nations Development Programme.” *UNDP*. Accessed November 2, 2022.
<https://www.undp.org/publications/un-sustainable-development-goals-report-2017>.
- “Universal Access to Reproductive Health: Progress and Challenges.” *United Nations Population Fund*. Accessed November 2, 2022.
<https://www.unfpa.org/publications/universal-access-reproductive-health-progress-and-challenges>.
- “*What Are the Different Types of Contraception?*” *Eunice Kennedy Shriver National Institute of Child Health and Human Development*. U.S. Department of Health and Human Services, n.d. Accessed November 2, 2022.
<https://www.nichd.nih.gov/health/topics/contraception/conditioninfo/types>.
- Wilkinson, Tracey A., Stephen M. Downs, and Brownsyne Tucker Edmonds. “*Cost Minimization Analysis of Same-Day Long-Acting Reversible Contraception for Adolescents.*” **JAMA Network Open** 2, no. 9, 2019.
- Williams, Bria Nikole, Victoria C. Jauk, Jeff M. Szychowski, & Janeen L. Arbuckle. “*Adolescent Emergency Contraception Usage, Knowledge, and Perception.*” **Contraception** 103, no. 5, 2021: 361–366.
- Yoost, Jennie L., Susan Paige Hertweck, and Susan N. Barnett. “*The Effect of an Educational Approach to Pregnancy Prevention among High-Risk Early and Late Adolescents.*” **Journal of Adolescent Health** 55, no. 2, 2014: 222–227.

Young, Honor, Lorraine Burke, & Saoirse Nic Gabhainn. “*Sexual Intercourse, Age of Initiation and Contraception among Adolescents in Ireland: Findings from the Health Behaviour in School-Aged Children (HBSC) Ireland Study.*” **BMC Public Health** 18, no. 1, 2018.

“*The Effect of Integration of Family Planning into HIV Services on Contraceptive Use among Women Accessing HIV Services in Low and Middle-Income Countries: A Systematic Review.*” **Frontiers in Global Women's Health** 3, 2022.

Webites

“Adolescent Pregnancy Fact Sheet.” **Africa Health Organisation**. Last modified March 22, 2019. Accessed November 1, 2022. <https://aho.org/fact-sheets/adolescent-pregnancy-fact-sheet/>.

Adolescent Pregnancy.” *World Health Organization*. World Health Organization, n.d. Accessed November 2, 2022. <https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy>.

“Demographic and Health Survey 2018.” **Nigeria - Demographic and Health Survey 2018**. Accessed November 2, 2022. <https://microdata.worldbank.org/index.php/catalog/3540>.

Development, Department for International. “*Evidence on Family Planning Use in Young People of Tanzania.*” *GOV.UK*. GOV.UK, May 15, 2019. Last modified May 15, 2019. Accessed November 2, 2022. <https://www.gov.uk/research-for-development-outputs/evidence-on-family-planning-use-in-young-people-of-tanzania>.

“*Family Planning and the 2030 Agenda for Sustainable Development: Data Booklet / Population Division.*” **United Nations**. United Nations, n.d. Accessed November 2, 2022. <https://www.un.org/development/desa/pd/content/family-planning-and-2030-agenda-sustainable-development-data-booklet>.

Making the Case for Investing in Adolescent Reproductive Health: A ...” Accessed November 2, 2022. <https://healtheducationresources.unesco.org/library/documents/making-case-investing-adolescent-reproductive-health-review-evidence-and-poppov>.

“*Marrying Too Young.*” **United Nations Population Fund**. Accessed November 2, 2022. <https://www.unfpa.org/publications/marrying-too-young>.

National Population Commission NPC Nigeria & ICF, International: Nigeria Demographic and Health Survey 2013. Abuja, Nigeria and Rockville, Maryland, USA: NPC and ICF International, 2014. P203 -232. Accessed November 2, 2022. <http://www.sciepub.com/reference/163552>.

National Population Commission NPC Nigeria & ICF, International: Nigeria Demographic and Health Survey 2013. Abuja, Nigeria and Rockville, Maryland, USA: NPC and ICF International, 2014. P203 -232. Accessed November 1, 2022. <http://www.sciepub.com/reference/163552>.

“*Nigerian Youth Call for Action to Improve Adolescents' Health.*” **World Health Organization.** World Health Organization, n.d. Accessed November 2, 2022. <https://pmnch.who.int/news-and-events/news/item/07-04-2021-nigerian-youth-call-for-action-to-improve-adolescents-health>.

Sustainable Development Goals: United Nations Development Programme.” **UNDP.** Accessed November 1, 2022. <https://www.undp.org/sustainable-development-goals>

“*Tanzania Demographic and Health Survey 2015-2016.*” *GHDx.* Last modified January 1, 1970. Accessed November 2, 2022. <https://ghdx.healthdata.org/record/tanzania-demographic-and-health-survey-2015-2016>.

“*Tanzania Demographic and Health Survey 2015-2016.*” *GHDx.* Last modified January 1, 1970. Accessed November 2, 2022. <https://ghdx.healthdata.org/record/tanzania-demographic-and-health-survey-2015-2016>.

Tarek Tawfik Amin Follow. *Research Question, Criteria, Formulation, and Relation to Research De...* Accessed November 2, 2022. <https://www.slideshare.net/TarekTawfikAmin/research-question-criteria-formulation-and-relation-to-research-designs>.

“*The DHS Program.*” *The DHS Program - Ethiopia: Standard DHS, 2021.* Accessed November 2, 2022. <https://dhsprogram.com/methodology/survey/survey-display-586.cfm>.

“*The 2015-16 Malawi Demographic and Health Survey (2015-16 MDHS).*” *Bootstrap Example.* Accessed November 2, 2022. http://www.nsomalawi.mw/index.php?option=com_content&view=article&id=222&Itemid=108.

“*Universal Access to Reproductive Health: Progress and Challenges.*” **United Nations Population Fund.** Accessed November 2, 2022. <https://www.unfpa.org/publications/universal-access-reproductive-health-progress-and-challenges>.

“Universal Access to Reproductive Health: Progress and Challenges.” **United Nations Population Fund**. Accessed November 2, 2022.
<https://www.unfpa.org/publications/universal-access-reproductive-health-progress-and-challenges>.

“What Are the Different Types of Contraception?” Eunice Kennedy Shriver National Institute of Child Health and Human Development. U.S. Department of Health and Human Services, n.d. Accessed November 2, 2022.
<https://www.nichd.nih.gov/health/topics/contraception/conditioninfo/types>.

World Health Organization. Agenda for Sustainable Development. Geneva, 2019.
Accessed on 25 April 2022.

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Appendix

**Lead City University, Ibadan
Department of Public Health**

**Assessment Of Knowledge and Practice Of Contraception among Adolescent
Girls (15-19 Years) in Ogun State Nigeria**
To be administered by Adolescent girls (15-19 years) old in Ogun State

Consent

Good day, my name is **Oniyitan Adedoyin**. I am working on the topic **Assessment of Knowledge and Practice of Contraception among Adolescent Girls (15-19 Years) in Ogun State Nigeria** for the completion of my MPH program.

This research aims to assess the knowledge and practice of contraception among adolescent girls (15-19 years) in Ogun State.

You are randomly selected to participate in the study, of which if you agree may take between 10-20 minutes to complete the questionnaire.

Possible Risk and Discomfort

The risk involved in taking part in this study is minimal. These include the time you will spend answering the questions. Some of the questions may be slightly personal and sensitive. However you have the choice to decline any question you are not comfortable with.

Possible Benefits

There are no direct benefits for participation in the study as well as no compensation for participation. However, the information that will be obtained from this study will

help immensely in improving contraceptive use and minimizing unwanted adolescent pregnancies.

Voluntary Participation

Your participation in the study is entirely voluntary. The interview will take between 10-20 minutes to answer the question if you agree to participate. You have the choice however, to refuse any question you are not comfortable with, or even withdraw your consent to participate in the study. Your decision to resign in the study will not come with any penalty, loss of benefits or any negative consequences.

Do you agree to participate in this research? Yes..... No.....

Signature of Respondent: Thumb Print:

.....

Start Time: End Time:

.....

Date:

Name of School Visited:

.....

A. Socio – Demographic Characteristics

Sn	Questions	Response	Code
Q1.	Age (<i>as at last Birthday</i>)?	Input Age (Yrs)	
Q2.	Highest level of Education	None	1
		Primary	2
		Secondary	3
		Tertiary	4
Q3.	What is your Religion?	Christianity	1
		Islamic	2
		Traditional	3
Q4.	What is your Marital Status?	Single	1
		Married	2
		Divorced	3
		Separated	4
		Co – habiting	5
Q5.	Place of residence		
Q6.	What is the highest level of education of your mother?	None	1
		Primary	2
		Secondary	3
		Tertiary	4
Q7.	What is the highest level of education	None	1

	of your father?	Primary	2
		Secondary	3
		Tertiary	4
Q8.	Who do you stay with?	Parents	1
		Guardian	2
		Partner	3
		By myself	4
Q9.	Occupation of father		1
Q10.	Occupation of mother		1
Q11.	Occupation of other Guardian		1

B.Knowledge, Attitude and Practice towards Family Planning

Sn	Questions	Response	Code
Q12.	Have you ever heard about contraception?	Yes	1
		No	2
Q13.	If yes, how did you hear about it?	Radio	1
		Teacher	2
		Health worker	3
		Family member	4
		Friend	5
		Partner	6

		Print media	7
		Others, (specify)	8
Q14.	Contraception is any method or procedure used to prevent pregnancy?	Yes	1
		No	2
		Don't know	3
Q15.	Have you ever heard of any contraceptive method before?	Yes	1
		No	2
Q16.	If yes, mention the methods that you know	IUD	1
		Injectable	2
		Implant	3
		Pills	4
		Condom (male/female)	5
		Diaphragm	6
		Locational amenorrhea method	7
		Others (specify)	8
Q17.	Where did you hear of this contraceptive?	Radio	1
		Family member	2
		Friends	3
		Partner	4
		Print media	5

		Teacher	6
		Health worker	7
		Others (specify)	8
Q18.	Do you know a place in your community where you can get contraceptive?	Yes	1
		No	2
Q19.	If yes, where?	Hospital/Clinic	1
		Pharmacy/Drug store	2
		Health provider	3
		Family planning/PPAG Clinic	4
		Friend	5
		Others (specify)	6
Q20.	Can a girl become pregnant from unprotected sex?	Yes	1
		No	2
		Don't know	3
		Others (specify)	4
Q21.	Do you think that contraceptive during sex provide 100% protection from pregnancy?	Yes	1
		No	2
		Don't know	3
		Others (specify)	4
Q22.	Do you think contraception is a woman's business and a man should	Yes	1
		No	2

	not worry about it?		
Q23.	Women who use contraceptive may become promiscuous	Yes	1
		No	2

C. Practice of Contraception

Sn	Questions	Response	Code
Q24.	Have you ever had sex before?	Yes	1
		No	2
Q25.	How old are you when you first had sexual encounter?		1
Q26.	Did you use any contraceptive the first time you had sex?	Yes	1
		No	2
		Not applicable	3
Q27.	Have you used any contraceptive before?	Yes	1
		No	2
Q28.	Which of the methods have you ever used?	IUD	1
		Injectable	2
		Implant	3
		Pills	4
		Female condom	5
		Male condom	6
		Diaphragm	7

Q29.	Which of the methods are you currently using?	IUD	1
		Injectable	2
		Implant	3
		Pills	4
		Female condom	5
		Male condom	6
		Diaphragm	7
		Locational amenorrhea method	8
		None	9
		Others (specify)	10
Q30.	Where do you get this contraceptive in the community?	Hospital/clinic	1
		Pharmacy/drug store	2
		Health provider	3
		Family planning/PPAG clinic	4
		Others (specify)	5
Q31.	How long have you been using contraceptives?	One month and above	1
		One to two years	2
		Three to five years	3
		Six to ten years	4
		Others (specify)	5
Q32.	How often do you use any of the	Every time	1
		Once a while	2

	methods?	Not at all	3
		Others (specify)	4
Q33.	What is your reason for using contraceptive?	To avoid teenage pregnancy	1
		To prevent STI	2
		Delay child birth	3
		Others (specify)	4
Q34.	Who in your opinion should use contraceptive?	Married couples only	1
		All sexually active persons	2
		Adults only	3
		Others (specify)	4
Q35.	The last time you had sex, did you or your partner use any contraceptive?	Yes	1
		No	2
		Not applicable	3
Q36.	Which method of contraceptive did you use?	Condom (male/female)	1
		Implant	2
		Injectable	3
		Pills	4
		IUD	5
		Spermicides	6
		Diaphragm	7
		Locational amenorrhea	8
		Others (specify)	9

Q37.	The last time you use contraceptive, who influenced it?	You	1
		Friend	2
		Partner	3
		Parent	4
Q38.	If you wanted to, could you yourself get any contraceptive?	Yes	1
		No	2
Q39.	If yes, which preferred method?	IUD	1
		Injectable	2
		Implant	3
		Pills	4
		Condom (male/female)	5
		Diaphragm	6
		Locational amenorrhea	7
		None	8
		Others (specify)	9

D. Perceived factors

Sn	Questions	Response	Code
Q40.	Do you currently have a sexual partner?	Yes	1
		No	2
Q41.	Do you feel any pressure from them to have unprotected sex?	Yes	1
		No	2

Q44.	If yes, from whom do you feel the pressure?	Friends	1
		Relative	2
		Partner	3
		Others (specify)	4
Q43.	Do you think sex education can influence contraceptive use or non-use?	Yes	1
		No	2
Q44.	Does your school syllabus include sex education?	Yes	1
		No	2
		Don't know	3
		Not applicable	4
Q45.	Did you get education on sex in school?	Yes	1
		No	2
		Not applicable	3
Q46.	Did you get education on sex in the house?	Yes	1
		No	2
Q47.	Is there any religious/cultural beliefs and practices that prevent the use of contraceptives among adolescent in your community?	Yes	1
		No	2
		Don't know	3
Q48.	If yes, can you mention them		1
Q49.	What will you say are the reasons why adolescents do not use contraceptive? (can tick more than	Religious beliefs	1
		Distance to acquisition of contraceptives	2

one)	Attitude of service providers	3
	Partner or family opposition	4
	Side effects	5
	Lack of knowledge	6
	Infrequent sex	7
	Hard to get preferred method	8
	Too costly	9
	Counselling received on contraceptives	10
	Cultural beliefs	11
	Others (specify)	12

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University Compliance Certification

This is to certify that this thesis by ONIYITAN Adedoyin Adedeji with Matric No. LCU/PG/001600 in the Department of Public Health, Faculty of Basic Medical and Health sciences, Lead City University, Ibadan is in full compliance with the approved university format.

Signature

Date

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