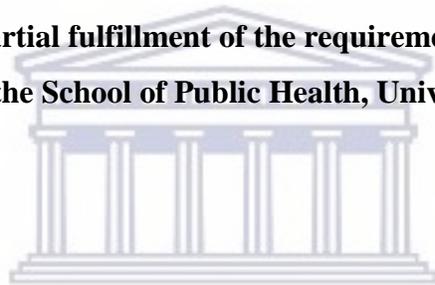


**ACCESS AND UTILIZATION OF REPRODUCTIVE HEALTH SERVICES AMONG
ADOLESCENTS IN KADUNA NORTH LOCAL GOVERNMENT, KADUNA STATE,
NORTH-WEST, NIGERIA**

AWAWU GRACE NMADU

3516661

**A mini-thesis submitted in partial fulfillment of the requirement for the Degree of Masters
in Public Health (MPH) in the School of Public Health, University of the Western Cape**



**UNIVERSITY of the
WESTERN CAPE**

Supervisor: Dr Suraya Mohamed

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KEYWORDS

Sexual and reproductive health services

Adolescents

Access and utilization

Facilitators

Barriers

Health workers

Primary health care centres

Qualitative study

Nigeria



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ABSTRACT

Introduction: A considerable proportion of adolescents in Nigeria are sexually active and involved in unprotected sexual activities with multiple partners. Consequently, these adolescents suffer high rates of sexually transmitted diseases, unintended pregnancy, and unsafe abortions. Many adolescents in Nigeria lack comprehensive knowledge about sexual and reproductive health (SRH) and face significant barriers to accessing quality sexual and reproductive health services (SRHS). This study was conducted because of paucity in information on the factors influencing access to and utilization of reproductive health services (RHS) among adolescents in Nigeria. The study aimed to explore the factors influencing adolescents' access to and utilization of RHS in Kaduna North local government area, North-Western Nigeria.

Methodology: An exploratory qualitative study was conducted. The convenience sample of adolescents included 14 adolescents and 3 adolescent reproductive health service (ARHS) providers purposively drawn from 3 primary health care centres (PHCCs). The data collection methods included individual in-depth interviews with adolescents and key informant interviews with service providers. The socio-ecological model was used as a framework to analyze the findings. Thematic analysis was employed to analyze the data.

Findings: The findings of the study indicate that adolescents' access to and utilization of RHS was low in Kaduna North LGA. A combination of the interplay of several individual, social and health system factors influenced adolescents' access to and utilization of RHS. Individual level factors like inadequate knowledge about type of RHS, poor attitudes towards RHS and certain risky behaviours of adolescents themselves negatively influenced their access to and utilization of RHS. Significant social level factors such as parental influence, community and religious norms, financial constraints and the stigma attached to adolescent's utilization of RHS also negatively influenced adolescents utilization of RHS. Health system factors such as poor health worker attitude and inconvenient opening hours were also found to hinder adolescent access and utilization of RHS.

Conclusion: Adolescents' experiences of accessing and utilizing SRHS were mostly negatively influenced by factors located within the adolescents and also beyond what they could control. These factors operated at the individual, social and health system levels and were interrelated.

The key recommendations of this study include reaching out to adolescents with information and education about ARHS and fostering supportive environments for positive ASRH development by: conducting community sensitization campaigns and community adolescent health education programs to build community support for ARH; improving the quality of ARHS delivery by providing training for health workers to comprehensive adolescent-friendly RHS; and empowering adolescents to actively participate in addressing their own SRH needs.



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DECLARATION

I declare that *Access and utilization of reproductive health services among adolescents in Kaduna North local government, Kaduna State, North-west, Nigeria* is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Awawu Grace Nmadu

November 2017

Signed

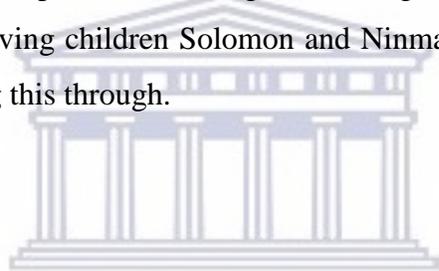
Awawu Grace Nmadu



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LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ARH	Adolescent Reproductive Health
ARHS	Adolescent reproductive health service
ASRH	Adolescent sexual and reproductive health
FMOH	Federal Ministry of Health
FHI	Family Health International
HIV	Human Immunodeficiency Virus
ICPD	International Conference on Population and Development
LGA	Local Government Area
NGO	Non-Governmental Organization
PHCC	Primary health care centres
RH	Reproductive Health
RHS	Reproductive health service
SEM	Social–ecological model
SRH	Sexual Reproductive Health
SRHS	Sexual reproductive health service
STD	Sexually transmitted diseases
VCT	Voluntary Counselling Testing
YFS	Youth-friendly Services

DEFINITION OF TERMS

Adolescent

The World Health Organization (WHO) defines an adolescent as a person between 10 and 19 years of age (WHO, 2010a).

Sexual health

According to WHO, sexual health is defined as “a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable safe sexual experience, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled” (WHO, 2006a).

Reproductive Health

The United Nations (UN) defines reproductive health (RH) as physical, mental and social wellbeing in all matters relating to the reproductive system and functions at all stages in life (UN, 1995).

Reproductive Health Services

According to the UN, reproductive health services include prevention, diagnosis and treatment as related to STIs and contraceptive service and counselling, pre and post natal care, delivery care, safe abortion and post abortion care and access to information and education to the above issues. (UN, 1995).

Adolescent Sexual and Reproductive Health

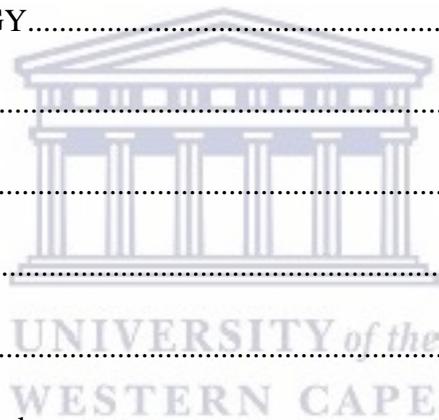
Adolescent sexual and reproductive health refers to the physical as well as emotional well-being of adolescents, and includes their ability of be healthy and remain free from unwanted pregnancy, unsafe abortion, maternal death and disability, all forms of sexual violence and coercion, sexually transmitted diseases, including HIV/AIDS (Senderowitz, 1995; WHO, 1998).

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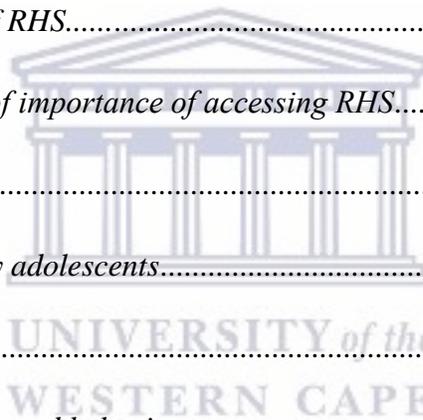
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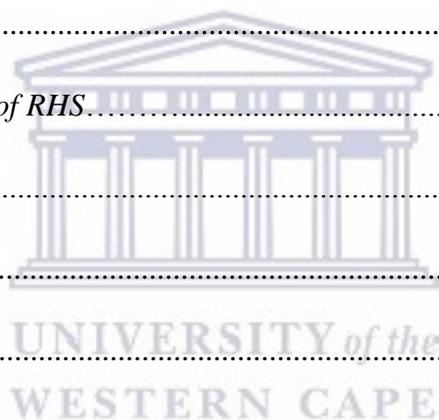
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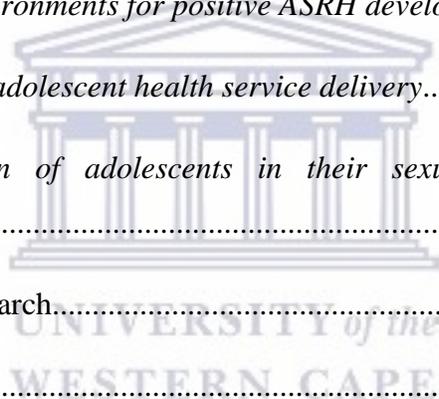
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CHAPTER 1

INTRODUCTION

1.1 Background

Adolescent sexual and reproductive health (ASRH) is a global public health concern. This is due to the fact that adolescent sexual activity has been on the increase in many countries around the world (Wellings, 2006). The World Health Organization (WHO) defines adolescents as young people between the age of 10 and 19 years, and they constitute about a fifth of the world's population (WHO, 2010a). Adolescence has been described as a time when young people engage in increasing risk-taking behaviour that exposes them to many health risks (Hale & Viner, 2016; WHO, 2014). Worldwide, the highest rates of sexually transmitted diseases (STD) occur among 20-24 year olds, followed by 15-19 year olds (CDC, 2014). Out of an estimated 22 million unsafe abortions that occur yearly, 15% occur among young women aged 15–19 years (WHO, 2011a). In developing countries, more than half of new cases of Human Immunodeficiency Virus (HIV) infections are among young people aged 15-24 years (WHO, 2015). Furthermore, STD rates have been seen to be the highest in Africa with sub-Saharan Africa (SSA) having 110 million new cases per year (WHO, 2011b).

The International Conference on Population and Development (ICPD) (1999) emphasized ASRH with the need to offer sexual and reproductive information and services to adolescents. Reproductive health services (RHS) that are adolescent-friendly have been found to be effective in addressing ASRH needs (UNFPA, 2003). However, according to the WHO, “most SSA countries have a dearth of adolescent-friendly health services and inadequate policies to address adolescent health needs” (WHO, 2010b). Nigeria showed its commitment to improving ASRH by developing the National Adolescent Health Policy based on the ICPD recommendations (ICPD, 1999). The specific ICPD recommendations were:-

1. Respecting, protecting and fulfilling sexual and reproductive rights for all through enabling public education and legal and policy reforms
2. Achieving access to universal, comprehensive and integrated sexual and reproductive health information, education and services
3. Ensuring universal access to comprehensive sexuality education for all young people

4. Eliminating violence against women and girls and securing universal access to critical services for all victims/survivors of gender-based violence (ICPD, 1999).

A national action plan for advancing young people's health and development in Nigeria was also developed (FMOH, 2010a). This plan focused on important actions that should be taken to improve the health of adolescents and youth in Nigeria.

Many adolescents below the age of 20 are already sexually active, but many face difficulties in obtaining reproductive health care (WHO, 2003). In addition, adolescents are typically poorly informed about how to protect themselves from pregnancies and STD (WHO, 2003). Globally adolescents access health services less frequently than expected (Cassidy, Herceg-Baron, Hock Long & Whitaker, 2003). Although adolescents in both developed and developing countries face challenges in accessing RHS, regional differences exist with adolescents in developing countries facing greater challenges. Research has shown that in many countries in SSA, young people face significant barriers to receiving SRH services resulting in the under-utilization of the service (Boonstra, 2007). A national representative survey conducted by Biddlecom, Munthali, Singh & Woog (2007) in four African countries found that young people aged 12-19 years old underutilized services such as contraception, STD prevention and treatment including HIV testing. Poor access and low use of RHS by adolescents have been attributed to lack of availability of services, lack of knowledge of adolescents about the available services, and social and cultural norms forbidding their access to sexual and reproductive services (Kamau, 2006; Biddlecom et al, 2007).

In Nigeria, a considerable population of adolescents is sexually active and are involved in unprotected sexual activities with multiple partners which expose them to a host of reproductive health problems (Bankole, Okonofua, Imarhiagbe, Hussain, & Wulf, 2009; FMOH, 2003; Okereke, 2010). Nigerian adolescents are also faced with cultural and social contexts which likely affect their access to and use of RHS (FMOH, 2009). Sexuality matters are looked upon as taboo for adolescents because sex is regarded sacred and seen as a topic for the married only (Ogundipe & Ojo, 2015). In addition, though the Federal government of Nigeria decided that sexuality education was integrated into the national school curriculum in 1999, the significant challenge that continues to threaten its implementation is the opposition from religious organizations and conservative political interest groups. These groups have the belief that

sexuality and HIV education encourages children and young people to experiment with sexual activity (UNESCO, 2010). These cultural and religious contexts result in adolescents being inadequately informed about sexuality matters, as they rely on their peers for information and often are exposed to incorrect information and myths (Ahlberg, Jylkäs & Krant, 2001).

Early marriage is a common feature of adolescent girls in Nigeria, particularly northern Nigeria which has some of the highest rates of adolescents involved in early marriage in the world (Bello & Erulkar, 2007). In Nigeria, 43% of girls are married off before their 18th birthday. 17% are married before they turn 15. The prevalence of child marriage varies widely in Nigeria with figures as high as 76% in the North West region and as low as 10% in the South East (UNFPA, 2012a). In some countries including Nigeria, barriers to contraceptive use at the community level depend on adolescents' marital status. For adolescents who are not married, community attitudes toward contraception stem from the stigma around sexual activity before marriage (Morris & Rushwan, 2015). As such adolescents who are not married are less likely to use reproductive health services.

Reproductive health services are provided mainly by the Nigerian government through maternal and child health programs. These services are usually not targeted to the needs of adolescents and there are also issues of inadequate skills among health workers regarding ASRH services (FMOH, 2009). Adolescent-friendly RHS have been largely lacking in the country, especially in rural areas (WHO, 2011c). Statistics in Nigeria have shown that RHS coverage rates are low, new HIV infection rates are high, contraception usage low and pregnancy rates are high among adolescents (Sedgh et al. 2009; UNFPA, 2013a).

Clearly, adolescents need SRHS, and access to needed services is vital in helping prevent adverse sexual and reproductive health outcomes. It is also necessary for protecting future generations from negative health consequences. Examples of specific successful youth-friendly service (YFS) implementation programs in Africa that have shown increased utilization, demand for and use of such youth-friendly services include: the National Adolescent-Friendly Clinic Initiative in South Africa (Ashton, Dickson & Pleaner, 2009); the Youth-Friendly Service Component of the African Youth Alliance (AYA) project (Daniels, 2007) and the Innovate Youth-Friendly initiative in Ghana (Moya, 2002). Therefore, further exploring factors affecting ASRH service access and utilization among Nigerian adolescents is important to improve ASRH

service utilization and thereby reduce the burden of adolescent disease, disabilities and other negative consequences associated with ASRH.

This study examined the factors that influence adolescents' access to and use of RHS in Kaduna North local government area (LGA), North-Western Nigeria. To the best of my knowledge, no similar study has been conducted in this region.

1.2 Problem Statement

In Nigeria, 34% of the population is made up of adolescents (National Population Commission, 2006). Over 30 million Nigerians are between the ages of 10-19 years and nearly one-third of Nigeria's total population is between the ages of 10-24 years with nearly half (48.6%) of adolescents aged 15-19 sexually active (FMOH, 2009; NPC and ICF Macro, 2009). The median age for first sexual intercourse in Nigeria has been reported to be 15 years for adolescent girls and 16 years for boys (NPC and ICF Macro, 2014). A survey conducted by National Agency for the Control of Aids (NACA) in Nigeria, showed that the percentage of young men and women aged 15-24 who have had sexual intercourse before the age of 15 increased from 9.8% in 2005 to 11.9% in 2007 and to 15.5% in 2012; indicating a continuous increase in the number of young people who engage in early sex (NACA, 2014). Another survey in Nigeria reported that 56.4% of sexually active boys and 39.6% of sexually active girls had unprotected sex with non-marital sexual partners 12 months prior to the survey (FMOH, 2013). A study conducted in Nigeria to determine the prevalence of abortion among women reported that one-third of those that had abortions were adolescent girls (Otoide, Oronsaye & Okonofua, 2001).

Two of the Northern regions of the country (North-east and North-west) account for 42% of the nation's 15 to 19 year old girls. Many of these girls are among the least educated in the country and account for 71% of annual births occurring in this age group (Singh, Audam & Wulf, 2004). These adolescents also have a fertility rate two points higher than Nigeria's average fertility rate of 5.2 (NPC & ICF Macro, 2009). Adolescent marriage and parenthood are common occurrences in both rural and urban communities in Northern Nigeria. The HIV prevalence rate among adolescents aged 15-19 years in the Northwest zone (3.3%) is higher compared to the national prevalence rate of 2.9% (FMOH, 2013). Furthermore, Kaduna has a low contraceptive rate (3%) among adolescents aged 15-19 years (FMOH, 2010b).

Evidence of unmet reproductive health needs among adolescents is reflected in research in Nigeria (Bankole et al, 2009; FMOH, 2003; Godswill, 2014). In order to provide appropriate ASRH services to meet these needs, it is necessary to understand the challenges encountered by the adolescents in accessing and utilizing RHS in their specific contexts and hence the purpose of this study.

1.3 Rationale

Research that has been conducted on ASRH in Nigeria has focused mainly on adolescent knowledge and perception of sexual and reproductive health (Kunnuji, 2013; Mba, Obi & Ozumba, 2007; Moronkola & Fakeye, 2008; Olaseha, Ajuwon & Onyejekwe, 2004); awareness of reproductive health rights (Ogunlayi, 2005); sexual behaviour and sexual practices (Aboki, Folayan, Daniel & Ogunlayi, 2014; Ajuwon, Olaleye, Faromoku & Ladipo, 2006; Owoaje & Uchendu, 2009); and unmet reproductive health needs (Bankole et al, 2009; Okereke, 2010). There is a paucity of studies exploring utilization of RHS by adolescents in Nigeria. Therefore, the purpose of this study is to examine the factors that influence adolescents accessing and utilizing RHS in Kaduna. Research has shown that the provision of ASRH services can have positive reproductive health outcomes (Cassidy, Herceg-Baron, Hock Long & Whitaker, 2003; Stone & Ingham, 2003). Thus, focusing on factors that affect access to and utilization of RHS by adolescents using a qualitative exploratory approach will provide an in-depth understanding of the challenges that adolescents face in this regard (Watzlawik & Born, 2007). This information can be used to improve the reproductive health outcomes of adolescents. The information generated will contribute to identifying potential areas of intervention and equip policymakers with evidence to mount focused interventions. This will ensure better access, utilization and provision of RHS to adolescents in Kaduna North LGA.

1.4 Aim

The aim of the study was to explore the factors that influence adolescents' access to and use of reproductive RHS health services in Kaduna LGA, Kaduna, Nigeria.

1.5 Objectives:

1. To explore factors that facilitate access to and utilization of RHS in the LGA.
2. To explore the barriers experienced by adolescents in accessing and utilizing RHS in the LGA.

3. To explore adolescents and key informants opinions on how to improve access to and utilization of RHS in the LGA.

1.6 Theoretical framework

The social–ecological model (SEM) has been employed in many studies to understand the individual, community and structural determinants of health (Mugavero, Norton & Saag, 2011; Sallis, Owen & Fisher, 2008; Stokols, 1996). The social ecological model also provides a conceptual framework to identify and understand factors that determine the behaviours and outcomes for adolescents (Bronfenbrenner, 1979). Recent studies have used the SEM as a framework to understand in greater depths the different socio-cultural factors that influence adolescents’ reproductive health (Hodgson, Ross, Haamujompa & Gitau-Mburu, 2012; Mburu et al, 2014).The SEM approach has also been used by evidenced-based adolescent health programs to increase impact and achieve better health outcomes among adolescents (DiClemente, Salazar & Crosby, 2007; Healthy Teen Network, 2014; Kirby, 2007).

The SEM is a multifaceted and comprehensive model that considers how factors situated within and beyond an individual interact to influence behaviour (Feldacker et al., 2011; Stokols, 1996). The model recognizes that individual behaviour is influenced by many factors which operate at different levels. It takes into cognizance the physical and psycho-social environment and the relationship it has with people at individual, interpersonal, organizational and community levels. A number of conceptualizations of the SEM use slightly different classifications that may range from three to five levels (Rowe, Shilbury, Ferkins & Hinckson, 2013). The current study used a modified SEM adapted from the work of Stokols (1996) with the categories individual factors, social factors, and a focus on health system factors as a component of environmental factors.

The individual level refers to characteristics of an individual that can influence the individual’s behaviour change. It includes factors like individual attitude, knowledge and actual behaviour. The social level refers to social factors that can influence behaviour like social norms, financial constraints and issues related to the stigma associated with ARHS utilization. The health system level considers the health care system and seeks to identify the characteristics of the health setting that can influence the behaviour of the individual. This includes health worker behaviour and availability of resources for provision of ARHS.

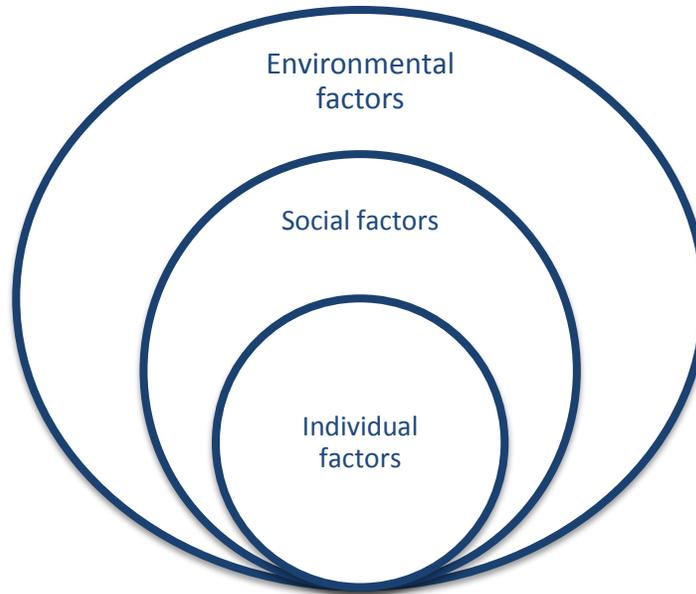


Fig.1.Socio-ecological model (based on the work of Stokols (1996))

1.7 Structure of the Thesis

This thesis consists of six chapters. Chapter one gives the background to the research study including the study context. It also discusses the aim and the objectives of the study. Chapter two presents a review of the literature on ARHS; adolescents' use of SRHS; factors influencing access to and utilization of ARHS; and approaches to improve access to and utilization of ARHS. The third chapter describes the methodology of the study. It includes the study design, study population and sampling, data collection methods, analysis of the data and rigour of the study. It also highlights ethical issues and limitations. The fourth chapter presents the findings of the study. The fifth chapter discusses the findings of the study. The final chapter draws conclusions from the study and makes recommendations based on the findings.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The literature review describes the concept of adolescent reproductive services, adolescents' use of sexual and reproductive health services, as well as factors affecting adolescents' access and utilization of RHS. It also considers approaches to improve access and utilization of ASRH services and finally describes the theoretical framework of the study.

2.2 Adolescent reproductive health services

Adolescents have differing health needs in the transition from adolescence to adulthood and they face peculiar reproductive health vulnerabilities (UNFPA, 2007). Adolescents require services that are specific, appropriate, accessible and user-friendly to effectively address their SRH needs (WHO, 2012). Services that are provided to adolescents ought to be confidential, private, and with their informed consent. Their religious beliefs and cultural values must be respected and these services should conform to relevant existing international agreements and conventions (UN, 1994). The ICPD called for national and international efforts to be directed at meeting the health service needs of adolescents (ICPD, 1999). In accordance with ICPD agreement, ARHS include:

- (a) Provision of information, education and counselling on sexuality, RH and parenthood to reduce risky behaviour
- (b) Provision of information, counselling and services such as pregnancy prevention, and prevention and treatment of HIV and other sexually transmitted infections (STIs) to reduce the harmful effects of risky behaviour
- (c) Management of abortion related services and where legal, safe abortion services.
- (d) Prenatal, postnatal and delivery care (UN, 1994; Pathfinder International, 2001; WHO, 2004a).

Nigeria's commitment to the ICPD to provide the broadest possible reproductive health benefits is revealed in the development of the National Reproductive Health Policy and Strategy (FMOH,

2001). The main priority areas of the policy are adapted from the ICPD and use strategies like the promotion of healthy RH behaviour, advocacy and equity for access to quality health services. Other areas include capacity building of individuals and youth-focused organizations in Nigeria that promote ARH, collaboration between governmental and Non-Governmental Organizations (NGO) and research promotion. The National Policy on Health and Development of Adolescents and Young People in Nigeria was developed in 2007. It highlights the importance of access to information and youth-friendly services (FMOH, 2007).

In Nigeria, the government is the main provider of health services through its health facilities including ARH services (FMOH, 2005). Non-governmental organizations, private and religious health institutions also complement the Nigerian government efforts in the provision of quality adolescent health care. Despite the provision of these services, an assessment of the ASRH situation in Nigeria revealed that RHS did not address the needs of adolescents (USAID, 2010). The report showed that there were few to no comprehensive health services that covered ASRH needs in most communities. Rural adolescents were found to be particularly underserved and many health service outlets were unequipped with staff unqualified to treat adolescent health issues. There were no links to other services that adolescents needed like counselling, skills empowerment and information networks.

Young people need reproductive health care now more than ever before and addressing these needs is crucial to preventing poor reproductive outcomes (UNFPA, 2007). Therefore, increased investment in the quality and infrastructure of ARHS is critical to adolescents' present and future wellbeing (International Women's Health Coalition, 2008).

2.3 Adolescents' use of sexual and reproductive health services

Evidence indicates that adolescents in developing countries underutilize RHS. A report on a survey from 70 developing countries on adolescents' use of RHS presented data related to contraceptive use, care-seeking for STDs and testing for HIV (Woog, Singh, Browne & Philbin, 2015). The findings revealed that modern contraceptive use was low among married adolescents in all regions of Africa. Only a minority of sexually active adolescent women who had an STD sought care at a health facility. The proportion of adolescent women who had been tested for

HIV 12 months prior to the survey ranged from 2% in Western African countries to 34% in Southern African countries.

Similar evidence exists in sub-Saharan African countries where it has been reported that many adolescents also underuse RHS (Bankole, Biddlecom, Guiella, Singh & Zulu, 2007; Biddlecom, Munthali, Singh & Woog, 2007; IPPF, 2010). Unmet contraception needs among adolescents is as high as 60% in some areas of sub-Saharan Africa and South Asia (UNFPA, 2013b). Utilization of modern contraceptives, especially by young married adolescents in Sub-Saharan Africa, was very low in all regions (UNFPA, 2012b). Another survey conducted in 41 sub-Saharan Africa countries from 1990-2011 revealed that in the majority of countries, less than 10% of adolescent women report the use of a modern contraceptive method (Kothari, Wang, Head & Abderrahim, 2012). Generally, the trend in the current use of contraceptives has shown higher usage among sexually active adolescents that are unmarried than among married adolescents (Blanc, 2009). More than half of all married adolescents are not using any contraception in sub-Saharan African countries (IPPF, 2010). Contraceptive use among sexually active unmarried adolescents in sub-Saharan Africa has been reported to range from 3% in Rwanda to 56% in Burkina Faso (Khan & Mishra, 2008). Among the countries with available data, the lowest rates of modern contraceptive use are in West Africa. For example, among 15 to 19-year-old married women, contraceptive use in Sierra Leone, Niger, Nigeria and Benin ranged from 1% to 3%. In contrast, some countries in Eastern and Southern Africa had higher rates of contraceptive use with 31% in Rwanda, 35% in Zimbabwe and 39% in Namibia (UNFPA, 2012c).

There is very little comprehensive, nationally representative data available about adolescents' utilization of abortion and post abortion care services (IPPF, 2010). Evidence from studies in 12 developing countries revealed that adolescents have a higher tendency to seek abortions from untrained providers compared with older women (IPPF, 2010). Adolescents account for a sizeable portion of post abortion care patients. Data available for four countries (Dominican Republic, India, Kenya and Malawi) reported adolescent post abortion care patients ranging from 21% in Malawi to 34% in the Dominican Republic (IPPF, 2010). Another report indicated that adolescents were less likely than older women to seek and obtain safe abortion services (Woog, Singh, Browne & Philbin, 2015).

A review of the literature in developing countries on the use of antenatal services by pregnant adolescents suggests that use is typically low, regardless of country, region and urban or rural areas (Neelofur-Khan & WHO, 2007). In developed and developing countries, antenatal care of adolescents often falls short of the standard of the country and is insufficient (WHO, 2004b). Even when adolescents do seek pregnancy-related care, it is often delayed or of inadequate frequency. Some other studies in sub-Saharan African and Asian countries have also found that adolescent mothers are more likely to delay seeking antenatal care (Kamal, Hassan & Islam, 2015) and less likely to receive adequate antenatal care, compared to older mothers (Atuyambe, Mirembe, Tumwesigye, Annika, Kirumira & Faxelid, 2008; Mngadi, Agwanda & Obare, 2007). Many adolescents are left out from services that would reduce their risk of sexually transmitted infections or that would help them prevent pregnancies because of laws that limit their access to these services without consent from their parents (UNICEF, 2012). Most young people, who have been at risk of HIV infection, have never been tested and most young people living with HIV do not know their status (WHO, 2009). Skilled birth attendance coverage has similarly been found to be low among adolescent births in developing countries, despite the higher risk related to young maternal age (UNICEF, 2012).

Comprehensive, correct knowledge is fundamental to the uptake of HIV services and behaviour change. Overall the level of correct knowledge of HIV and AIDS remains very low among older adolescents aged 15–19 years with more boys than girls having accurate knowledge (UNICEF, 2012). Adolescents are unlikely to seek antiretroviral treatment if they do not know they are infected with HIV and their diagnosis may be delayed until they have symptoms of late stage disease (UNICEF, 2012).

2.4 Factors influencing access to and utilization of adolescent reproductive health services

A series of multifaceted factors prohibit good SRH for adolescents. Sexual and reproductive behaviours are governed by complex social, economic, cultural and psychosocial factors (WHO, 2011c). The availability of the RHS and their procedures for utilization partly determined adolescents' access to the services (Cassidy, Herceg-Baron, Hock Long, & Whitaker, 2003). According to Cohen (2002), adolescents living in developing countries where health services are few or even lacking face greater challenges accessing RHS. For the purpose of this literature

review, the factors that affect adolescents' utilization of RHS are classified into three main groups: individual, social and health system factors.

2.4.1 Individual factors

Inadequate knowledge about RH and RHS is a barrier which might hinder utilization of RHS by adolescents. A study done in Burkina Faso, Ghana, Malawi, and Uganda showed that contraceptive, STI and voluntary counselling and testing (VCT) services are still under-utilized by adolescents due to their lack of knowledge about the services (Biddlecom et al, 2007). The study found that lack of understanding of the importance of sexual health care or knowledge of where to go for care discourages young people from using the services. There is also evidence that the more educated youths are the more likely they are to seek youth-friendly health services as they possess a better understanding of their health needs (Rani & Lule, 2004). It is acknowledged that education is a key component of sustainable development and is one of the most important underlying determinants of health at individual and community levels. Education decreases poverty through improved employment opportunities and provides skills for attaining better health (WHO, 2006b).

On an individual level, embarrassment in seeking RHS has been reported in various studies as barriers to adolescent's access to RHS (Regmi, Van Teijlingen, Simkhada & Acharya 2010; UNDP, 2015). Shyness was the most commonly reported reason among adolescent boys (69%) and the second commonest reason for adolescent girls for not accessing RHS in a study conducted in Nepal (UNFPA, 2015). This included reluctance to discuss sensitive issues related to SRH and the embarrassment associated with physical/genital examination particularly if there was only a provider of the opposite sex present or if the provider was someone known to the family. Studies have reported on the preference of adolescents to see health providers of the same sex as a barrier to utilization of services (Ghafari, Shamsuddin & Amiri, 2014; Newton-Levinson, Leichter & Chandra-Mouli, 2016). For example, a study in Malawi reported adolescents not accessing services because they had problems with explaining genital issues to a provider of the opposite gender (Munthali & Zakeyo, 2011).

In a study conducted in Nepal, male adolescents admitted to being embarrassed to ask for condoms from health facilities, and unmarried boys and girls felt shy and uncomfortable buying

condoms and other contraceptives from local stores (Regmi et al, 2010). Another study also conducted in Nepal reported on how adolescents felt ashamed to put down their names, addresses and the number of condoms they had taken (Dahal, 2005).

2.4.2 Social factors

Some factors that operate at the social level that deter adolescents from the utilization of RHS include gender inequity and economic dependence (UNDP, 2007). Girls and women often suffer disproportionately from reproductive ill health which affects their wellbeing in a negative manner, as a result of peculiar gendered barriers to accessing health care (IPPF, 2015). With regard to gender inequity, in many countries around the world, women and girls have still been found to have lower status, fewer opportunities and lower income, less control over resources and less power than men and boys. These gender roles may weaken the young women's ability to protect themselves and gain access to the services they need (Woog et al, 2015). When young women are submissive they lack autonomy and ability to make decisions on SRH issues and this increases vulnerability which has been found to limit their access to reproductive health information, services and contraceptives (Mbeba et al, 2012; Morris & Rushwan, 2015).

Financial barriers are other significant factors which may affect adolescents' access to RHS. A study done by Program for Appropriate Technology in Health (PATH) (1999) showed that, generally, health service utilization including RHS was tied to economic aspects of an individual. In a large-scale population-based survey in Kenya and Zimbabwe, researchers found affordability to be the third most important aspect of 'youth-friendliness,' as reported by young people themselves (Erulkar, Onoka & Phiri, 2005). Adolescents in the study alluded to the fact that they could not afford the cost of the services that were provided and this served as a barrier to their utilization of the services. The adolescents suggested the provision of low-cost or free services as one of the most important aspects of ARHS be addressed to improve utilization. Unmarried young people are particularly often dependent financially on parents and may be afraid of being reprimanded or disapproved of if they request money for SRHS (Tyree, Haller, Graham, Churchill & Sanci, 2007).

Reproductive health is also influenced by values, cultural norms and traditions adhered to by different communities and these can serve as barriers to accessing and utilizing ARHS (Kamau,

2006). Cultural and religious factors create an unfavourable environment for discussion of ASRH due to the strongly rooted sense of condemnation of adolescent sexual activity (Morris & Rushwan, 2015). Studies have shown that in cultures in which social norms do not condone premarital sex, young people who are unmarried and experience sexual problems such as an STD or unplanned pregnancy will probably address the issue on their own. In communities where premarital sexual activity is not condoned, adolescents have been found to have limited access to RHS and information (Chikovore, 2004). Studies have also shown that religion is a major barrier to adolescents' utilization of RHS (Godia, 2013; Mbeba, 2012; Upadhyay, 2016). Religious values usually prevent the open discussion of sexual matters that tends to reduce adolescents' access to basic reproductive health information and services. Research has shown adolescents are still sexually active despite these moral inhibitions and often end up with unfavourable outcomes (Chikovore, 2004; Smith, 2004). They may ask for help from trusted friends or siblings or go to private clinics and access care from clinics that are far from their homes (Tylee et al, 2007). However, if adolescents are supported by parents, family and other community members they are better equipped to make healthy choices (Gavin, Catalano, David-Ferdon, Gloppen & Markham, 2010).

Studies have also shown that adolescents' utilization of RHS may be restricted because of fear, stigma, and shame (Blanc, Tsui, Croft & Trevitt, 2009). A study in Tanzania reported that adolescents do not seek formal treatment for reproductive health problems as a result of shame and fear of disclosure (Nyblade, Stockton, Nyato & Wamoyi 2017). Another study conducted in Australia revealed that young people were discouraged from visiting clinics because of fear of the possible stigma attached to ARHS (Rickwood, Deane, Wilson & Ciarrochi, 2005). Young people fear stigma and repercussions or judgment from providers, family and communities which hinder them from accessing RHS, particularly unmarried adolescents and especially girls (UNFPA, 2015).

In Nigeria, like in some other developing countries, adolescents face socio-cultural barriers as well making it difficult for them to access and utilize RHS (FMOH, 2009). Many parents in Nigeria do not give children information on sexuality because discussing sex with them is regarded as a cultural taboo. Sexuality education has not been formally introduced into many

schools in Nigeria (FMOH, 2009). Adolescents do not have adequate information about SRH and are therefore exposed to a barrage of reproductive health problems.

2.4.3 Health system factors

In many developing countries, providing universal access to sexual and RH care for adolescents is beyond the health systems' capacity. In some cases even where the health facilities exist, there is not enough trained staff to provide the needed services and supplies of drugs and contraceptives are limited (Woog et al, 2015). Poor health systems with weak infrastructure for sexual health, communications and transport can make access to services in rural areas particularly difficult (Kabiru, Izugbara & Beguy, 2013). For example, in Nigeria a principal barrier to providing adequate comprehensive ARHS has been the lack of provision of adequate resources (funding, personnel, infrastructure and supplies) especially at the sub-national level for implementation of the ICPD-aligned policies, programs and services (Mandara, 2012; USAID, 2010).

There is the argument that the most important barrier to RHS care is the attitude of health workers (Morris & Rushwan, 2015). Many adolescents are discouraged from using services because of judgmental attitude of health workers and their lack of maintaining confidentiality. Studies of the attitudes of health professionals to adolescent SRH problems in Kenya and Zambia (Warenus et al, 2006) Swaziland (Mngadi, Zwane, Ahlberg & Ransjo-Arvidson, 2003) and Uganda (Kipp, Chacko, Laing & Kabagambe, 2007) confirmed health worker disapproval of adolescent sexual activity, including masturbation, contraception and abortion.

Health workers behaviours can also significantly hinder adolescents' utilization of RHS. Services need to be provided in a youth-friendly environment with health workers that are welcoming and supportive towards adolescents seeking care (Jonas, Crutzen, van den Borne & Reddy, 2017). It is clear that interventions which aim to address the negative attitudes of health workers are likely to improve adolescents' RHS utilization (Jonas, Crutzen, van den Borne & Reddy, 2017).

Other important health service barriers that prevent young people from obtaining sexual and reproductive health services include inconvenient location and hours of operation of facilities and the cost of services (Biddlecom et al, 2007; WHO, 2012). There are also barriers that relate to the way the SRH facilities are set up and the design of services. These include lack of

confidentiality and privacy; not providing an area specifically assigned to young people where they can wait to be seen; and the setting of the facility being uncondusive for the peculiarities of adolescents and/or welcoming only to women and not men (Lindberg, Lewis-Spruill & Crownover, 2006).

2.5 Approaches to improve access and utilization of adolescent and sexual reproductive health services

Approaches to improve ARHS utilization adopted globally include school-based health services, initiatives addressing availability of more effective methods of contraceptives, creation of effective adolescent pregnancy and STD prevention strategies, and establishment of youth-friendly adolescent clinics (Hock long et al, 2003). A systematic review of interventions that increased use of RHS in developing countries included those that provided training for service providers and promoted the services with adolescents and gatekeepers in communities (Dick et al, 2006). Other interventions that have been found to support greater access to and utilization of RHS by adolescents includes those that specifically work to change the underlying norms and attitudes that perpetuate poor health outcomes for adolescents (Chandra-Mouli, Lane & Wong, 2015; IRH & Save the Children, 2016). Mass media initiatives and information, education and communication strategies are also interventions that have been used to improve access and utilization of ARHS in low-income countries (Denno, Hoopes & Chandra-Mouli, 2015).

2.5.1 School-based sexuality education

Strong evidence exists which has shown that quality school-based sexuality education programs have a positive impact on adolescent's knowledge and attitudes about sexuality and reproductive health, and many studies have reported on positive behavioural impacts as well. For example, a study by Traore (2002) of twenty-one school-based sex education programs in developing countries found that nearly all the programs had a positive influence on RH knowledge and attitudes and led to improved behaviours. Similarly, a systematic review of 83 studies of curricula based programs in developing countries found that 72% of the programs had a positive impact on changing behaviour (Kirby, 2006). Furthermore, in a study conducted by WHO to grade programs for their effectiveness in reducing HIV among young people, graded the

curriculum based sexuality education program with a 'GO' grade which signified that there was enough evidence to recommend widespread implementation of the program (WHO, 2006b).

2.5.2 Mass media messaging

As alluded to earlier, research has consistently found that school-based sexuality education improves adolescents' knowledge and attitude and has also found a strong correlation between school attendance and reduced sexual risk-taking (NRC, 2005). However, not all adolescents in developing countries attend school and are able to benefit from its protective effect. Reaching out to out of school adolescents with messages intended to ensure positive behaviours are therefore critical (Petroni & Fritz, 2013). This is the reason why the mass media, including print, radio and television is increasingly becoming an important avenue to convey information to adolescents in the developing world. A review of studies in Africa and Latin America on mass media-based interventions aimed at influencing adolescent sexual knowledge and behaviours found positive behavioural outcomes like greater use of condoms and other contraceptive services (NRC, 2005). The WHO similarly found that media interventions that are culturally sensitive have been shown to have a positive impact on knowledge and behaviour of adolescents (WHO, 2006b).

2.5.3 Youth-friendly services

Youth-friendly services are usually designed to make the use of existing RHS more acceptable and appealing to young people. Based on years of research and expert consultations the WHO (2009) identified five key dimensions of YFS: Equitable, accessible, acceptable, appropriate and effective. The WHO found that ASRH interventions could increase adolescents' use of services provided that the service providers were trained, health facilities were adolescent-friendly, demand is created and community support is achieved through actions like extensive community mobilization and targeting of key gatekeepers (WHO, 2006b).

The National Research Council (2005) reported that there were only a small number of YFS programs in developing countries that had been rigorously evaluated. However, positive results have been identified, particularly where efforts were made with local communities to attract adolescents to health facilities.

2.5.4 Multi-component programs with community involvement

While there is evidence to support any one of the strategies mentioned above, research has shown that single approaches alone do not meet all the ASRH needs of adolescents (WHO, 2005). Adolescents are influenced by other individuals, their families, school, community and societal factors and as such multi-component strategies that address these areas are necessary to sustain positive changes in behaviour (Neelofur-Khan & WHO 2007). There is evidence that involving the community can help to gather even wider support for ASRH programs and can lessen some of the barriers adolescents face in accessing services (WHO, 2005). Literature has demonstrated the importance of supply-side strategies such as providing YFS and health provider training and their incorporation with information dissemination to create demand and support for ARHS (Denno et al, 2015). Several examples of programs that have integrated multi-pronged approaches including school-based sexuality education, mass media messaging and youth-friendly health services have led to significantly positive wider outcomes with regard to adolescent's access to and use of RHS (Daniels, 2007; Denno et al, 2015; NCR, 2005; Speizer, Magnani & Colvin, 2003).

2.6 Conclusion

Adolescents' utilization of RHS is governed by the context in which adolescents live, there is a mix of interrelated factors that affect and influence their health-seeking behaviour. There could be individual level factors such as lack of knowledge about available ASRH services, fear and shame which impede adolescents' utilization of RHS. The health behaviour of adolescents may also be socially patterned and culturally defined, thus socio-cultural expectations of adolescence may affect their utilization of RHS. There are also health system related factors such as lack adolescent-friendly services amongst others that affect adolescents' utilization of RHS. Looking through the lens of the SEM it is clear that the complexity of adolescents' access to and utilization of RHS needs a multipronged approach to address the various barriers to adolescents accessing and utilizing ARHS. This would improve reproductive health outcomes in adolescents.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter describes the methodology used in this research study. It outlines the study design, study setting, study population and sampling procedures used. It also describes the data collection tools and the process of data collection. It goes further describing the data coding and analysis procedures. It addresses the issues of rigour and the limitations of the methodology used. Finally, the ethical considerations of the study are highlighted.

3.2 Study design

An exploratory qualitative design was used for this study. The exploratory nature of this study was suitable for understanding in greater depth the experiences, perceptions and feelings of adolescents regarding barriers and facilitators influencing their access to and utilization of the RHS in their local context which had not been sufficiently explored before. Exploratory qualitative studies are aimed at investigating the full nature of a phenomenon in a new area by gaining in-depth understanding from the lived experiences of the subjects (Polit & Hungler, 1999). A qualitative approach allows for free, unstructured expression and is not limited by predetermined boundaries that characterize the quantitative approach (Pope & Mays, 1995). In a qualitative study, the researcher not only describes the complexity of what is being studied but also tries to make explicit the underlying structures that make sense of that complexity (Green & Thorogood, 2005; Neuman, 2010). The emphasis in qualitative research is on thick descriptions, which is a detailed description of events as they are happening and placing them in their context (Babbie & Mouton, 2001).

3.3 Study Area

Kaduna is a state in North-Western Nigeria. The population of Kaduna state according to the 2006 census stands at 1,570,331 (NPC, 2006). Kaduna's youth (15-24 years) constitute 19.4% of the population, with girls comprising 52% of the total youth and boys 48%. Agriculture is the main economic activity in Kaduna State and other activities include trade, commercial and industrial activities (Federal Republic of Nigeria/World Bank, 2017). The majority of the population (62%) earn less than 1 dollar a day and are considered poor. Kaduna North LGA is

one of the four LGAs in the city of Kaduna. It shares boundaries with Igabi, Kaduna South and Chikun LGA. It has an area of 72 km² and is a densely populated urban area with a population of 357,694 (NPC, 2006). The predominant ethnic groups are Hausa, Gbagyi (gwari) and Fulani, with over twenty other ethnic minority groups. The majority of the populace are religious, mainly Muslims and Christians whose religious beliefs do not necessarily encourage openness in the discussion of issues of sexuality between parents and children (Christian Aid, 2016). Sexuality education is not taught as a subject in schools in the LGA (Omo, 2011). There is one tertiary health facility, two secondary health care centres, twelve public primary health care centres (PHCC) and 62 private clinics in the LGA. Non-governmental organizations (NGO) and religious institutions also provide RHS in the LGA. Numerous patent medicine vendors and chemists exist in the LGA which adolescents patronize because of their close proximity to the people.

All the PHCC in Kaduna LGA provide RHS. These services include family planning, antenatal, postnatal care, child delivery services and health education on topics such as reproductive health, family planning, birth preparedness, newborn care, sexually transmitted diseases, personal hygiene and cleanliness among others. Curative services such as the treatment of STD are also provided. There are reproductive health clinics at the PHCC; however, the services provided at the clinics are not targeted specifically at adolescents. This can compromise their privacy and confidentiality.



Figure 2: Map of Kaduna State

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3.4 Study population

This study drew on two study populations. The first study population comprised of male and female adolescents between the ages of 15 and 19 years residing in and attending the PHCC in Kaduna LGA. This age range is referred to as late adolescence and encompasses the latter part of the teenage years (UNICEF, 2011). Adolescents between the ages of 15-19 years were the focus of this study because evidence both in developed and developing countries have shown that during late adolescence, young people are more likely to be having sex and engage in risky sexual behaviours (CDC, 2017; Morris & Rushwan, 2015). Data in Nigeria has also revealed the median age for first sexual intercourse for adolescent girls is 15 years and 17 years for boys (NPC and ICF Macro, 2014). Older adolescents would have more experiences than younger adolescents and be better able to discuss and reflect on their broader experiences (Bohn &

Berntsen, 2008). The decision to use PHCC in the LGA to access adolescents was based on the consideration that the PHCC are the closest point of contact for the populace with health services for the majority of their health care needs (Starfield, Shi & Macinko, 2005). The second study population was service providers of RHS services at the selected PHCC.

3.5 Sample and sampling procedure

Convenience sampling was used to select adolescents because the attendance for RHS by adolescents was generally poor. There were no specific RH clinics for adolescents where a list of adolescents could be obtained. Therefore, adolescents who came to the health centres to access any service during the duration of data collection were approached to participate in the study based on their availability. De Vos (2001) has described a convenience sample “as the use readily accessible persons in a study”. According to Mbokane (2009), individuals who happen to cross the researcher’s path, and meet the inclusion criteria set for the study get included in a convenience sample.

For the selection of the adolescents, the sister-in-charge at the health centres assisted the researcher in identifying and recruiting adolescents according to the inclusion criteria. Any adolescent who met the inclusion criteria and had come between January and April 2017 to access any service at the health centres was identified and approached to participate in the study. The sister-in-charge introduced the researcher to the adolescents and gave the researcher the opportunity to introduce herself and inform the adolescents about her intentions. The researcher visited the health centres consistently over the period of data collection and conveniently selected the first 14 adolescents that were available at the time of her visits and who consented to be interviewed. The inclusion criteria for the study were that adolescents had to be between 15-19 years of age and attending the health facility. Adolescents above 18 years had to consent to participate and those below 18 years had to assent to participate and also had to have their parents’ consent to participate in order to be included. The exclusion criteria for the adolescents were those above 18 years who were not willing to participate in the study; those below 18 years had not assented, and those whose parents had not given consent for them to participate.

Health workers providing RHS to adolescents were purposively sampled for key informant interviews (KII) because of their experience and knowledge to gain their perspective on the

subject matter. The aim of purposive sampling is to select potential respondents who have the knowledge, perception and experience of a particular phenomenon, to answer the research questions (Gibson & Brown, 2009). For purposive sampling, the researcher sets certain criteria for inclusion (Robson, 2011). For the key informants, the inclusion criteria were they had to be nurses working for at least two years providing RHS to adolescents. Nurses who had not worked for two years in the facility and who did not provide RHS were therefore excluded from the study. The sister-in-charge at the health centres assisted in purposively identifying the key informants according to the inclusion criteria. The researcher felt the sister-in-charge would be familiar with who would be most appropriate for the key informant interviews.

Initially, one PHCC in the LGA was identified and selected based on its proximity to the tertiary health care facility in the LGA to provide the proposed total sample size of fourteen for the study. However, because of the low turnout of adolescents for utilization of RHS at that clinic, the sample size was not reached. Therefore, a further two PHCCs were selected based on their proximity to schools, making a total number of three PHCCs to obtain a bigger sample. A total of fourteen in-depth interviews were conducted and the researcher was satisfied that saturation had been reached by then, with both male and female adolescents who had attended the PHCC over the period of three months of data collection.

Initially, a sample of two key informants was to be purposively selected in relation to their experience in dealing with ASRH issues. The researcher decided to increase the number of key informants to three so that she could have the perspectives from health providers at each of the PHCC that were selected.

3.6 Data collection methods

Data collection took place between January 2017 and April 2017. The data collection methods included individual in-depth interviews with adolescents and KIIs with the RHS providers. A mixed qualitative method approach of data collection using both in-depth interview and KII was utilized because of the benefits that can be realized. These advantages include (USAID, 2013):-

1. Providing a broader and deeper understanding of the phenomenon under study.
2. Capturing a wider range of perspectives than might be captured by a single method and generating new insights through findings from the different methods.

3. Enhancing the credibility of the findings by comparing information obtained from different methods of data collection

3.6.1 *Individual in-depth interviews*

Individual in-depth interviews were conducted because ASRH is a sensitive issue and it made it easier for the researcher to establish a sense of trust and openness with the adolescents on an individual rather than a group basis, as an adolescent might have been reluctant to share personal experiences with their peers. According to several researchers (e.g. Babbie & Mouton, 2001; Curry, Nembhard & Bradley, 2009; Marshall & Rossman, 1995), a one-to-one interview is more contained and confidential and therefore was appropriate to obtain a rich, detailed description of the sensitive phenomenon of ARHS. Individual interviews were conducted in a private room at the clinic because of the sensitive nature of the topic. Each interview took between twenty to forty minutes. All interviews were audiotaped with the participant's permission and conducted in English which is the lingua franca in Kaduna. Considering that Kaduna is a multi-lingual city with more than 20 ethnic groups, using English eased communication in a multilingual setting and addressed the need for sourcing of many interpreters. The researcher conducted all the interviews herself and when she thought she was not understood, she took time to clarify the interview questions. There was also a research assistant who took notes throughout the interviews and to document the non-verbal responses of the participants. The recorded interviews were transcribed verbatim by the same research assistant who took the notes during the interviews.

3.6.2 *Key informant interviews*

Key informant interviews were conducted with RHS providers based on their experience in the provision of services to adolescents. The service providers were interviewed at the clinic in a private room when they were not attending to clients. The interviews lasted between forty-five minutes to one hour.

3.7 *Data collection tools*

Interview guides were used for both the in-depth interviews and KII (Appendices 1 & 2 respectively) which consisted of semi-structured open-ended questions. The interview guides

were based on the research objectives. The questions for the adolescents covered the following key areas:

- Perception of importance of RHS.
- Experiences with the RHS offered in the community and impression about quality of services.
- Facilitators and inhibitors to adolescents using RHS services.
- Suggestions and preferences regarding RHS.

The questions for the key informants covered the following areas:

- Type of RHS services offered.
- Perception of the quality of services offered.
- Perceptions of adolescents' use of RHS.
- Suggestions on how to improve RHS provision for adolescents.

3.8 Data analysis

The transcribed data were analyzed using the six-phase approach to thematic analysis as proposed by Braun & Clarke (2006). These are: (1) familiarizing yourself with the data, (2) generating initial codes (3) searching for themes (4) reviewing themes (5) defining and naming themes, and (6) producing the report. During the first phase, the researcher familiarized herself with the collected data by reading through the transcriptions and the interview notes and listening to the recordings several times to become familiar with the data.

In the second phase, a data-led approach was used where analysis of the data guided the generation of codes. The researcher scrutinized the data in order to identify codes that described the contents of a line or even a paragraph. The researcher coded the chunks of data by using highlighters and inserting comments in the text to identify sections of the data. The researcher continued coding all the transcripts matching data extracts that demonstrated a particular code or added new codes where necessary.

The third phase involved searching for themes from the codes that were previously determined from the data. The researcher organized the various codes into possible themes. The researcher did this by looking for patterns in the coding and categorized them into tentative themes.

In the fourth phase, the researcher reviewed the tentative themes. She re-read the entire data set to ascertain whether some possible themes were not really themes or whether other themes required breaking down into further distinct themes. She also reviewed the themes by examining the themes in relation to the data and considered whether they appeared in a consistent pattern. In the process some themes were abandoned, some modified and others were subdivided and more themes generated.

The fifth stage involved defining and labeling themes and organizing them into consistent descriptions. Here, the researcher also identified subthemes which she defined and labeled. The researcher also took into consideration how each theme fitted into the general picture being presented about the data in relation to the research objectives.

The final step involved the report writing. Here the researcher provided descriptions and explanations of the themes in the form of a report. Excerpts from the data were used to illuminate the findings.

3.9 Rigour

Rigour is a way of demonstrating the credibility, and integrity of the qualitative research process (Koch, 2006). Rigour was applied in this current study by paying attention to credibility, dependability and transferability (Guba, 1981).

3.9.1 Credibility

Credibility is the extent to which the findings can be trusted and is used in qualitative research in preference of the term internal validity that is used in quantitative studies (Petty, Thomson & Stew, 2012). Triangulation is one way of ensuring credibility. The use of different data sources was used as a form of triangulation. Data were gathered from the adolescents and also from RHS providers who had experiences working with adolescents and were used to determine the extent to which findings could be verified (Casey & Murphy, 2009). In addition, the researcher also spent some time with the participants after the interview. She allowed time for the participants to

ask questions and also summarized the responses with the participants for verification of her understanding of what they had said.

To enhance credibility the researcher also consulted with her supervisor who had knowledge and experience of qualitative research at all stages of the research on a regular basis. This assisted her with following the necessary steps of the research process including the analysis. To further enhance credibility in the study, the researcher audiotaped all the interviews which were checked against the verbatim transcriptions.

3.9.2 Dependability

Dependability relates to consistency within the study and describes the extent to which the study can be repeated by another researcher (Petty et al., 2012). Dependability has been mentioned to be achieved through creating an audit trail which provides a clear documentation of all activities in the study (Creswell & Miller, 2000; Guba, 1981). The researcher ensured this by keeping a research diary of all research activities and a record of data analysis procedures.

3.9.3 Transferability

Transferability is the extent to which the findings of a study can be applied in other contexts and when readers find the results of a study to have meaning and to be applicable to their own experiences (Petty et al., 2012; Sandelowski, 1986). For transferability, the researcher provided rich descriptions of the study setting and participants to give the context of the study. This was done to ensure the applicability of the study findings to similar settings. (Creswell & Miller, 2000). This study provides insights for other similar settings and the good documentation of the methodology allows similar studies to be conducted elsewhere.

3.10 Ethics considerations

Ethics approval was sought from the University of the Western Cape Biomedical Research Ethics Committee and the Kaduna State Ministry of Health Ethics Committee before conducting the study. Permission was also sought from the PHC coordinator of Kaduna North LGA and the heads of the PHCC. The participants were given a verbal explanation of the purpose of the research, and what the research process entailed. They were also given a participant information sheet (Appendix 3 & Appendix 4) to go through and ask questions if they were not clear about

anything, after which their permission was sought to be interviewed. Permission was also sought from participants to audiotape the interviews. Adolescents who were 18 years and older and key informants who consented to be interviewed were given consent forms to complete (Appendix 6 & Appendix 7) and the interview was conducted on the same day. Two of the adolescents who were less than 18 years who assented to be interviewed were given informed assent forms to complete (Appendix 9). The adolescents were informed that participation in the study was voluntary. Only willing adolescents who understood and agreed to participate in the study were recruited as study participants.

The parents/guardians who had accompanied their wards to the health centres were given a parental permission form (Appendix 8) to complete. It was intended that parents/guardians of adolescents below 18 years would be contacted via a letter with information about the study seeking their consent for their ward to participate in the study (Appendix 5). However, during data collection the parents/guardians of the adolescents who were below 18 years had accompanied their wards to the health facility and therefore their consent was sought on the same day and permission was granted to do the interview on the same day too.

At the start of each interview, the motivation for conducting the study and the importance of gaining an understanding from participants was explained to each participant again. The importance of being able to share their experiences, suggestions, questions and reservations freely, in order to obtain information that could assist with the improvement of the current ARHS in the LGA was explained. The participants were informed that the information they provided would be kept confidential and that they were free to withdraw from the study at any time without any negative consequences. Only pseudonyms were used in the study to protect the identity of the participants. Privacy of the in-depth interviews was ensured by having the interviews in a private room. The data was securely locked in the researcher's office with no access to anyone else.

Given the sensitive nature of the research topic, adolescents were informed about the possible risks that may occur as a result of divulging personal information which they may find uncomfortable, embarrassing or emotional. They were assured that if any of these occurred during the interview, where appropriate they would be referred to a professional who would provide the necessary care and assistance. However, this was not necessary during the

interviews. The feedback on the findings of the study will be disseminated to the health centres and the district health management team in the LGA by means of a brief written report.

3.11 Limitations

Considering that the research topic is a sensitive topic, it was anticipated that the limitations might include response bias such as giving false responses. To overcome this limitation, the adolescents were reassured of confidentiality and the importance of giving honest answers in order to obtain truthful information that could be used to improve and provide better ARHS. Initially, the researcher had intended to take those seeking RHS as the study population of adolescents, but in the course of data collection she found out that there were too few adolescents seeking RHS and therefore she broadened the study population to include adolescents that came to access any of the services offered at the PHCC.

Conducting the research in a second language of the adolescents might have made it difficult for them to provide a rich description of their experiences because adolescents might more likely have understood the interview questions and expressed themselves better in their native language. The interviews were however conducted in English to ease communication in a multilingual community and also because English is officially adopted as the second language and the language of instruction in schools in Nigeria, including Kaduna. To overcome this limitation, the researcher made sure she gave adequate time to ensure that adolescents understood interview questions, gave them the opportunity to ask questions if they did not and also checked for their understanding by asking a certain questions a different way to see if the response would be similar.

The findings of this study are not generalizable to the entire population adolescents in Kaduna or to other settings given the qualitative nature of the study. However, it provides relevant insights for this setting which could be applied to similar settings. Another limitation could be that this study deviated from the usual use of purposive sampling commonly use in qualitative studies and used convenience sampling for the adolsecents instead. In convenience sampling, the researcher faces a greater risk of bias because the sample selected might not be representative of the study population. (Etikan, Musa & Alkassim 2016). The sample was also small but in qualitative research, the researcher is more concerned with relatively small samples purposefully selected to

produce information-rich cases that will yield in-depth understanding of all aspects of the phenomenon under investigation (Rice & Ezzy, 1999).

Being a community health physician who interacts and works with adolescents in the community, the researcher was aware that it did have the potential to influence the research process, analysis and results. The participants' perceptions of the researcher including her professional role as a health worker could have influenced their interactions with her, and also the information revealed by participants. To avoid this respondent bias, the researcher emphasized the importance of truthful and accurate reporting of their experiences. The values and beliefs of the researcher as a health care worker could also have influenced the information that was shared. In order to avoid researcher bias, keeping a journal was used so that the researcher could be reflexive throughout the research process.



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CHAPTER 4

FINDINGS

4.1 Introduction

This chapter presents the findings of the study. The chapter first describes the characteristics of the participants and then describes the findings. The findings are presented under the following themes: characteristics of the participants; adolescents' knowledge about RHS; utilization of RHS; reasons for not accessing and utilizing RHS; social factors influencing access and utilization; and suggestions for improving adolescents' access and utilization of RHS

4.2 Characteristics of the participants

A total of 14 in-depth interviews were carried out with adolescents aged 15 to 19 years sampled from three PHCC. Nine in-depth interviews were held with girls and five with boys. Of the total adolescents, two were married and were both females. Two were in secondary school, one had completed secondary school but was presently working as a barber while 11 were at various levels in tertiary institutions. Based on religious affiliation nine were Christians and six were Muslims.

The three key informants were ASRH service providers and were purposely selected (one from each health facility) because of their experience in dealing with ASRH issues. The characteristics of the key informants and adolescents are given in Table 1 and table 2 respectively.

Table 1: Characteristics of the key informants

	Age	Sex	Marital Status	Religion
Health Facility A	46	Female	Married	Christian
Health Facility B	30	Female	Married	Muslim
Health Facility C	49	Female	Married	Christian

Table 2: Characteristics of the adolescents

	Age (years)	Sex	Marital Status	Religion	Educational Status
Health Facility A					
	18	Female	Single	Christian	Tertiary institution
	19	Female	Single	Christian	Tertiary institution
	18	Female	Single	Muslim	Tertiary institution
	19	Female	Married	Muslim	Tertiary institution
Health Facility B					
	18	Male	Single	Muslim	Tertiary institution
	18	Male	Single	Muslim	Tertiary institution
	18	Female	Single	Christian	Tertiary institution
	19	Male	Single	Muslim	Tertiary institution
	19	Male	Single	Christian	Tertiary institution
Health Facility C					
	16	Female	Single	Christian	Secondary School
	18	Male	Single	Christian	Secondary School
	17	Female	Single	Muslim	Secondary School
	19	Female	Single	Christian	Tertiary institution
	19	Female	Married	Christian	Tertiary institution

4.3 Adolescents' knowledge of reproductive health services

Most of the adolescents in the study lacked adequate knowledge about RHS. Findings revealed that many of the adolescents did not have access to accurate and relevant reproductive health information. In order to first establish their understanding, the adolescents were asked what they understood by the term "Reproductive Health Services." Most of the adolescents were not familiar with the term RHS. Only four of the 14 adolescents answered that they were familiar with the term and they explained it similarly in terms of services rendered in relation to the reproductive health system or reproductive organs.

'...I think it is Em... the services rendered either in the hospital or clinic that has to do with the reproductive system.' (Female, 18 years, single, Muslim)

'They are the services rendered to adolescents pertaining reproduction which can be in terms of pregnancy and other things related to the reproductive health system.....' (Female, 19 years, married, Muslim)

4.3.1 Knowledge of the types of RHS

The four adolescents who were familiar with the term RHS were knowledgeable about the various types of RHS that were available. Among the RHS mentioned by them were antenatal care, postnatal and delivery care; family planning; screening and treatment of STDs including HIV; provision of education and counselling on reproductive health issues and abortion related services. They also had knowledge about some of the different methods of contraception such as condoms, contraceptive pills and injectables. The married adolescents had more knowledge about the different methods of contraception than the unmarried adolescents as they were able to mention more methods of contraception such as the intrauterine contraceptive devices (IUCDs) and implants.

Regarding their source of information, books, the internet, friends and health workers were mentioned as the commonest sources of information. The school and churches were also noted as sources of information.

'I remember when I was in SS 1 [first year in senior secondary school], they [a company marketing sanitary pads] came to our school and talked about reproductive health. There

were also some church programs where we were taught about some issues in reproductive health.’ (Female, 19 years, single, Christian)

For the adolescents who answered that they were not familiar with the term RHS, I explained the term to them making sure that they understood what the term meant, before proceeding with the interview. After my explanations, it became clear that most of them had prior knowledge about some RHS, but they did not know these services by the term ‘RHS’. However, most of these adolescents were not fully aware of the different types of RHS available in health facilities. Some of them were aware of RHS such as antenatal care and contraception, while some were aware of screening for and treatment of STD including HIV and a few were aware of services related to abortion. The most common method of contraception mentioned by this group of adolescents was condoms, followed by pills. There was poor knowledge about other methods of contraception among this group of adolescents.

‘I know about the condoms.....and sometimes some people use drugs [pills]..... (Silence).....I only know about condoms and drugs.’ (Female, 18 years, single, Christian)

‘Mostly, we guys use condoms to prevent conception from taking placethat is what we are familiar with and comfortable with.’ (Male, 18 years, single, Muslim)

Some of the adolescents (that answered that they were not familiar with the term RHS) said that they had been exposed to some reproductive health messages most commonly about HIV and prevention other of STDs through enlightenment programs organized either in the school setting or elsewhere by NGOs.

Their sources of knowledge about reproductive health included friends, neighbours, brothers or sisters, the internet and health workers. The preferred sources of knowledge for obtaining information about reproductive health in this group of adolescents were from friends and the internet which then informed their decision making.

‘I myself, if I had an STD or infection, I am a person who does a lot of research. The first step if I were to have an infection or see a discharge will be to Google it. I mean, I know it's not advisable to treat yourself but I might do the research just to have an idea of what

is happening to me and the next step will be for me to talk to someone, most likely a close friend.’ (Male, 18 years, single, Muslim)

‘Assuming I want to use a particular drug for family planning, I will go to a friend who I know is sexually active and ask for such drugs and how they use it. If a friend is using one and she is successful and I don’t see any negative effect on her from the kind of plan she is using, I think I would prefer to use what she is using, considering that she has had that experience.’ (Female, 18 years, single, Christian)

None of the adolescents had received reproductive health information through sexuality education in any of their educational institutions. They all said that reproductive health was not part of their curriculum in school.

4.3.2 Adolescents’ perception of the importance of accessing RHS

All the adolescents had a good perception of the importance of adolescents accessing RHS, in terms of both the benefits of accessing the services and the demerits of not accessing the services. For example, they understood the importance of prevention and treatment of STDs and the repercussions of not accessing treatment.

‘Em.....Like in the case of infections, a lot of teenagers have infections but have problems, they do not want to access it or they do not want to admit that they have it, so they will end up coming down with serious complications from just slight infections to even infertility...also...Em!....we have heard cases of young people that went to do abortions themselves and died....so, death...can result from not seeking help.’ (Female, 18 years, single, Christian)

They also recognized the benefits of pregnant adolescents accessing care related to pregnancy and delivery, and they gave examples of consequences that could arise from not seeking proper reproductive health care.

‘It is very important because it is there [the health facility] you will be able to know.....for example if you go there, after delivery, they will enlighten you on the importance of family planning and educate you about how to take care of yourself after

delivery and you will be able to have access to some services that women who are at home will not get access to. (Female, 19 years, married, Christian)

Though, the adolescents had a good perception of the importance of accessing RHS; some of them felt that some RHS, such as accessing contraceptives, were not meant for adolescents. For example, some adolescents felt that sexual activity was meant for married couples, not adolescents.

'The one [reproductive health service] on sexual intercourse is not good for adolescents like us....condoms are good for some people but not for me because we are not up to age for sexual activities. It's not meant for us, it's meant for adults.....husbands and wives [married people].' (Female, 16 years, single, Christian)

'I don't also believe that adolescents should make use of contraceptives. I feel the best is abstinence and then when you are married..... Ehen! [Expression of approval] then it's OK. That's what I have been taught and I believe that is the best way to go.' (Female, 19 years, single, Christian)

There was also an assumption that making contraceptives available to adolescents would make them promiscuous.

I think if you make it [contraception] open to everyone, so many young people will go ahead and do things [have sex] even when they know what they are doing is not good, because they know the services are there and people are there to take care of them.... so they may do as they like. Sometimes, some young people misuse the services.' (Female, 18 years, single, Christian)

One participant (who personally chose to abstain) was of the opinion that even though he did not approve of it, contraceptives should be made available to adolescents who were sexually active, to protect themselves.

'I'd be among those who'd disapprove of adolescents using contraception, but for the sake of their lives and safety, well..... I think it'll be good to provide such a service for as many people who want to have sex. I for instance for over five years now have been out of an intimate relationship [not had sex] not because there aren't people that I can be in a

relationship with, but because I am determined not to. I know there is time for everything, and the time is not now.' (Male, 19 years, single, Christian)

4.4 Utilization of RHS

4.4.1 Types of RHS accessed by adolescents

The RHS that had been accessed by the two married female adolescents were antenatal, childbirth and postnatal services. One of them who had also made use of contraceptive services reported that she knew its importance and was happy using it, while the other one was inclined to not make use of contraceptives. Her preference was using the natural method (abstaining from sex during unsafe periods).

'I make use of the natural method..... Well, because I feel safe to practice the natural method and it is also because I don't get to see my menses during the period I am breastfeeding.' (Female, 19 years, married, Muslim)

The common services that were utilized by the unmarried adolescents were HIV screening and treatment of STDs. None of them admitted to seeking contraceptive services in a health facility because it is generally frowned upon.

'Well...[getting contraceptives] from the hospitals, I think no.....because to an extent even if they [adolescents] want to, they have to act to be like married or something because the people around turn to look at them in a disapproving manner. So you have to ask for it in a way that people would not look at you in a bad way.' (Female, 18 years, single, Christian)

While a few claimed that they had not made use of contraceptive services at all, others admitted to having a preference for accessing contraceptive services outside of the health facilities. Preferred sources of obtaining contraceptives were from the local shops or supermarkets, patent medical stores and pharmacies without checking the quality of the products.

'[Adolescents get condoms] mostly from pharmacies..... and mostly without the knowledge of whether it is good or not, they just purchase it.' (Female, 18 years, single, Christian)

One of the adolescents admitted that he accompanied his friend who had gotten his girlfriend pregnant to obtain abortion services.

4.4.2 Quality of RHS

4.4.2.1 Health provider attitude and behaviour

Most of the adolescents reported that they and their peers had mixed feelings regarding the satisfaction of RHS that they had sought. The most common reasons that they had given for both satisfaction and dissatisfaction were mainly related to the way they were treated when they went to access the service.

'I was satisfied with the service, they were very friendly and reassuring and made me feel comfortable.' (Female, 17 years, single, Muslim)

'They didn't waste my time, when I went, immediately they did as if it was something serious, they gave me immediate attention. I was satisfied with the service.' (Female, 18 years, single, Muslim)

'The service was good, or let me say adequate. Everything went well. I was satisfied with the service. They [the health workers] treated me well.' Female, 19 years, married, Muslim

On the other hand, some adolescents complained about the attitude and behaviour of health providers. They reported that they and their friends were dissatisfied with the care they received because of the judgmental attitude and the unprofessional behaviour of the nursing staff. This included unfriendly and hostile behaviour and not showing concern.

'While I was sitting down and waiting for my turn, I heard the nurses talking indiscreetly about a girl that had come to the clinic, they were saying... "see this girl, she is a small girl and she is coming for an abortion" and things like that. So, imagine if I was there for the same purpose, I will simply walk away because I would also feel bad. They were saying it where people were, and the people sitting around were saying 'God forbid' and things like that.....'. (Female, 18 years, single, Christian)

In Nigeria abortion is legally restricted and permitted only when medically recommended to save the life of the mother. There are criminal penalties for non-compliance to the abortion laws of the country (Center for Reproductive Rights, Undated). This explains the negative reactions of the healthcare workers and even members of the community to the adolescent above.

'No, I was not happy because they delayed a lot. Even when you come early, you might be the last to leave. They shout at you, maltreat you and your purpose for coming was for treatment not to come and face some shouting other challenges.' (Male, 18 years, single, Christian)

'Health workers have negative attitude towards unmarried adolescents' use of family planning, they frown at it.' (Female, 19 years, single, Christian).

'The doctors need to work on how they receive patients. A lot of adolescents complain that you can't talk to the doctor or the doctor is hostile or maybe you want to talk to the doctor and you do not know how to start to explain yourself and the doctor will be like if you are not ready, get out of my office I have other people and things like that.' (Female, 19 years, single, Christian)

4.5 Reasons for not accessing and utilizing RHS

4.5.1 Shyness and shame

Experiences of shyness and shame featured prominently as reasons why adolescents did not access RHS. The adolescents admitted to being shy to ask for condoms or pills from the health facilities.

'They [adolescents] are shy and can't bring themselves to discuss with the doctor. We see these things as personal and when you go to the hospital to see a doctor you feel you will be telling the doctor something that he is not supposed to know because it is considered personal.' (Female, 19 years, married, Muslim)

One adolescent narrated how uncomfortable she felt while being examined by a health worker.

'I felt very shy and embarrassed during the process of taking the [vaginal] swab.' (Female, 18 years, single, Muslim)

A health worker confirmed:

'Some [adolescents] are shy, they are sexually active but they will not open to tell you the truth.' (Married, 30 years, Muslim)

Adolescents highlighted the fear of being stigmatized by society by expressing concern about being seen at RH centres by parents, community members or even friends, which could lead to being labeled as promiscuous.

'Well... because of what people will say, before you know it tomorrow the whole town will get to know what you went to see the doctor for. In cases of contraceptives or family planning, you will also have to go to where nobody knows you or you have to access them on your own without prescription.' (Female, 18 years, single, Christian)

One adolescent narrated how fear of shame kept one adolescent from letting her parents know that she had an STD and ended up having complications.

'There is this friend of mine she had an infection [STD], it was hard for her to tell her mother until it got really bad. They went to the clinic - the doctor told her she might not be able to have a child in future or something like that. She told me earlier than she told her mother which shouldn't be. Again, her concern was that of being judged, which was why she kept quiet for so long.' (Male, 18 years, single, Muslim)

4.5.2 Gender preference for service

Some adolescents had a preference for a health provider of a particular gender. Most of the females preferred to be attended to by female health workers and were usually distressed when they had to be attended to by male health workers.

'My parents told me that I should never allow a man to touch me, so if I know that it is a male doctor in the hospital then I will never go there, it is better I die in silence.' (Female, 18 years, single, Christian)

'Yes, it is a big issue because many husbands would not want their wives to be examined by a male health worker and I prefer also to be seen by a female health worker.' (Female, 19 years, married, Muslim)

4.5.3 Opening hours

Some adolescents and also health workers mentioned inconvenient opening hours as a major hindrance to adolescents accessing RHS. Adolescents complained that the opening hours of the health facilities coincided with the times that they were at school, and by the time school was over the health facilities were usually closed. Many of the adolescents talked about having to miss school in order to access RHS.

'I don't know if they [health workers] can talk to the patients to ask what timing is convenient for them and also make some of the clinic days evening hours like for those of us going to school. Some of us usually miss school whenever it is clinic day.' (Female, 19 years, single, Christian).

A health worker also attested to the fact that inconvenient opening hours was a barrier to adolescent's access to RHS but highlighted the challenge of resource constraints if they were to extend the hours of the services.

'We struggled with relaxing the opening hours because we knew if we wanted to catch them, students or youths will go to their various places of work, they were in school and after school, they will like to relax but we had human resource issues.' (Married, 56 years, Christian)

4.5.4 Resources for provision of RHS

Some adolescents complained of instances where they had gone to access care but did not receive the medications prescribed to them because the medications were not available. One said:

'My concern is the medicine. There was a time I came and I couldn't get any medication. I was prescribed, and I went out to buy for myself.' (Male, 18 years, single, Muslim)

Health workers also identified as hindrances the lack of infrastructure, equipment and educational materials to keep adolescents engaged.

'The main problem we have is lack of space, but if we have enough space and adolescents can be directed to access services in one place separate from the adults and

privacy can be ensured, it is going to be very pleasant and ok. (Female, 46 years, Christian)

'Provisions need to be made for audio-visual educational materials, TVs, infrastructures, equipment, games....' (Female, 51 years, Christian)

Staff shortage leading to heavy workload was an issue raised by health workers which hampered them from providing adequate RHS. The health workers indicated that they had to shorten the amount of time they spent with each patient in order to cope with the high demands.

'There is the issue of inadequate staffing, which puts a lot of strain on the health worker and does not allow us to dedicate enough time when attending to adolescents.' (Female, 30 years, Muslim)

4.6 Social and economic factors influencing access and utilization

4.6.1 Cultural and religious norms

Cultural and religious norms were the most significant barriers identified by the adolescents and the health workers that affected adolescents' access to RHS. Cultural taboos were reported to prevent adolescents from openly discussing sex and reproductive health issues.

'Adolescents do not normally talk freely to each other about contraceptives, it is a very secretive matter, and it is not culturally acceptable.' (Female, 18 years, single, Muslim)

Religious beliefs that inhibit adolescent sexual activity, provision of reproductive health information and RHS were also mentioned as preventing adolescents from accessing RHS.

'like cases like contraceptives, the religion [Islam] does not allow it, you are supposed to give birth to anything God gives you or as an adolescent you bring up the issue of contraceptives, and they will say you are spoilt [immoral], where did you learn it from.' (Female, 18 years, single, Muslim)

Parents, community members and the society at large were said to be influenced by cultural and religious beliefs, and as such did not support adolescent sexual activity and use of contraceptive services. These beliefs made the adolescents themselves feel guilty to engage in sexual activity and also to access RHS.

'There is a lot of pressure from the society and religious leaders and parents, not to engage in premarital sex, so going to access the service is not an option because of disapproval from all around you.' (Male, 19 years, single, Muslim)

'It's hard for them [adolescents] to accept they did it [had sex], they know in both Christianity and Islam it is wrong for you to have premarital sex, so they are usually weighed down by guilt.' (Male, 18 years, single, Muslim)

4.6.2 Lack of parental communication

Communication gaps existed between most adolescents and their parents that affected their ability to openly access and utilize RHS. Most of the adolescents admitted that they had not had discussions about sexuality with their parents. It was something that they felt was a 'no go' area because of societal norms which discouraged such discussions. The adolescents generally preferred to remain quiet about their unmet sexual health needs or spoke to friends who themselves were not well informed, rather than inform or involve their parents because of fear of being suspected of being sexually active.

'I can't talk to my parents about this [accessing RHS].... I just can't, I would not feel comfortable. Most of the time, the only people you can talk with are your friends which most times are your age mates and they know little about it.' (Male, 18 years, single, Muslim)

On the other hand, some female adolescents shared that their mothers had talked to them about menstrual hygiene and warned them not to get involved in sexual activity.

4.6.3 Financial barriers

Access to RHS was also dependent on the socio-economic background of adolescents. Some of the adolescents mentioned cost as a barrier to their accessing RHS, in terms of transportation costs and ability to pay for RHS.

'My dad is the one that gives me transport money whenever I want to go to the health facility. When my dad doesn't have money, I don't go.' (Female, 16 years, single, Christian)

'They [the husbands] complain about the financial burden, which they can do without..... Some of them discourage the young woman [from accessing care] because they want to avoid the expenses of giving them money to buy drugs [medication].' (Female, 19 years, married, Muslim)

4.7 Suggestions for improving adolescents' access and utilization of RHS

Adolescents and health workers were asked to suggest ways for improving access and utilization of RHS and the main themes that emerged were related to awareness raising activities and health system changes.

4.7.1 Awareness raising activities

All the adolescents were of the view that there was a need to raise awareness in the community about RHS. They reported that they did not have adequate information about RH and available RHS. They suggested that regular educational seminars and campaigns should be organized on reproductive health and RHS. The adolescents reported the need to be provided with handbooks and pamphlets containing reproductive health information. Adolescents indicated the need for the introduction of sexuality education in schools and also the need to target communities and religious leaders with reproductive health messages. In addition, adolescents reported that parental encouragement, support and good communication with parents about SRH issues would make it easier for them to access RHS as they would need their parent's assistance at times to access the services even though, adolescents can access RHS without parental or spousal permission.

4.7.2 Health system changes

The participants made several recommendations with regard to the health system. The adolescents felt that the health workers should be friendly and sensitive to their needs, particularly when asking sensitive questions about reproductive health issues. Adolescents also suggested the need to consider the gender of the service provider attending to them. Most of the female adolescents said they preferred and even would actively seek out female service providers because they felt more comfortable with them and could discuss their reproductive health issues more freely with them.

They also suggested more flexible opening times that could accommodate them after school hours and also health facilities being open during the weekends to attend to them when they did not attend school. Some adolescents advocated for free RHS. Considering the limited financial capabilities of adolescents, many of them said that if services were free it would encourage better patronage from adolescents. The health workers highlighted that government needed to provide adequate funding to enable provision of educational materials, equipment and supplies, infrastructure and facilities required for the provision of adequate RHS to adolescents. They also recommended that staffing conditions should be improved and that the government should invest in training of adolescent reproductive health providers to provide the necessary adolescent specific services.

The adolescents placed a high value on privacy and confidentiality. Many expressed their views about how health workers' abilities to ensure confidentiality would encourage many adolescents to seek and utilize RHS. They said young people would be encouraged to make use of RHS if they are assured that privacy would be respected. They suggested that separate services should be provided for adolescents and also the establishment of health centres exclusively for adolescents that would ensure that adolescents do not share or wait for services with adults. They suggested the siting of these clinics be in discrete locations where the risk of being seen by others was minimal.

4.8 Conclusion

The findings of the study reveal that adolescents faced many barriers that influenced their access to and utilization of RHS. The findings indicate that the adolescents' knowledge about the different types of RHS was low, and this translated into low utilization of services. Some significant barriers were the cultural and religious norms against utilization of ARHS and negative health worker attitudes. Other barriers to utilization of RHS were shyness, non-availability of same-sex health workers, inconvenient opening hours and inadequate resources for the provision of ARHS. The study also indicates that respect for privacy and confidentiality; and the friendly and welcoming attitudes of health workers facilitated adolescents' access to and utilization of RHS. Participants also made suggestions for improvement of adolescents' access to and utilization of RHS. These included carrying out awareness raising activities about ARHS in the community and addressing health system related barriers by provision of adolescent-friendly

services that are private, confidential, affordable and gender sensitive. The necessity of having adolescent-friendly health workers was emphasized, in addition to making provisions for flexible health facility opening hours and equipment, infrastructure and supplies the provision of RHS. All these factors highlight the complexity of factors influencing adolescents' access to and utilization of ASRHS.



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CHAPTER 5

DISCUSSION

5.1 Introduction

This study set out to explore the factors that influence adolescents' access to and use of RHS in Kaduna LGA, Nigeria. The findings of this study are discussed in relation to the socio-ecological model and the literature to help understand the adolescents' access to and utilization of RHS. As discussed earlier, the socio-ecological model considers an individual's behaviour as a function of the interplay between individual, interpersonal or family, social and organizational/health system factors (Sallis, Owen & Fisher, 2008).

5.2 Individual level

5.2.1 *Lack of knowledge types of RHS*

This study shows that lack of knowledge about the different types of RHS that were available was a key limiting factor to adolescents' use of RHS. Many of the adolescents in this study did not have access to accurate and relevant information about the types of RHS that were available. They had limited knowledge about the types of RHS that were available which resulted in low service utilization. This was similar to the findings of a study conducted in Sri Lanka, where adolescents had limited knowledge about the various RHS that were available and this constituted a barrier to their seeking the services (Agampodi, Agampodi & Ukd, 2008). Conversely, a study conducted by Tegegn, Yazachew & Gelaw (2008) in Ethiopia found that adolescents had good knowledge about the types of RHS which facilitated their use of the services. Similarly, a recent study on utilization of youth-friendly services among adolescents in Ethiopia (Yohannes, 2016) found that adolescents with knowledge of family planning and voluntary counselling and testing (VCT) services were more likely to use these services than those that did not have knowledge about the services.

The limited knowledge of adolescents in the current study about the different types of RHS highlights the need to focus on programs that would equip adolescents with information and knowledge related to the various RHS services. This could enable adolescents to make informed decisions and enhance their utilization of the services. One way of increasing knowledge on ASRH is through school-based programs. School-based ASRH programs have been

recommended for widespread implementation (Dick, Ferguson & Ross, 2005) because they have been shown to significantly impact on RH behaviours of adolescents (Denno et al, 2015; Kirby, Obasi & Laris, 2006).

The attitude of the adolescents in the current study was positive towards sexuality education. Adolescents exhibited a good attitude towards wanting to learn about their sexual health. Some of them were aware that the advice they had received about SRH might not be the best, and they desired correct information on sexual health. Similarly, previous studies have also reported that most adolescents hold a positive attitude towards sexuality education (Ali, Waheed & Memon 2006; Ogunjimi, 2006; Qazi, 2003). Comprehensive sexuality education interventions have been shown to promote a positive impact on adolescents' sexual and health seeking behaviours (Denno et al, 2015; Decker, Berglas & Brindis, 2015). The positive attitude of the adolescent in the current study towards sexuality education provides the opportunity to mount sexuality education programs which adolescents are already receptive to.

The health system can play a part in correcting misinformation and misconceptions among adolescents, their parents and the community at large. This can be done by implementing outreach programs targeted at these various groups of individuals. Moreover, when adolescents have adequate knowledge about RHS, it will enable them to exhibit better health-seeking behaviours and enhance service utilization.

5.2.2 Attitude to RHS

The findings of the current study reveal that adolescents generally displayed negative attitudes towards premarital sex and the use of contraceptives. The majority of them did not consider sexual relationships acceptable at their age and therefore felt that contraception should be for married people. This view was portrayed more strongly by girls than boys. This finding was similar to what was reported in a study on the effects of youth-friendly services on service utilization among the adolescents in Zambia (Bond, Magnani & Nelson, 2000) and in Ghana (Dodam, Mohammed, Eneye & Yeboah, 2016). The attitude of adolescents in the current study towards sex and contraception was a reflection of the socio-cultural norms about adolescents and sex, which considered premarital sex among adolescents unacceptable. This seemed to shape their perception and attitude towards sex and contraceptives.

Some of the adolescents in this study also expressed mistrust of health workers. This finding is consistent with other studies that report on adolescents' mistrust of health workers (Miller, Wickliffe, Jahnke, Linebarger & Dowd, 2014; Santhya, Prakash, Jejeebhoy & Singh 2014). This mistrust was due to the fear that their confidentiality about their sexual health would be broken. It has been documented in the literature that when confidentiality is compromised, adolescents will be less likely to use the services in the future and also will be less open about their sexual health conditions (Thomas, Murray & Rogstad, 2006). Ensured confidentiality and privacy were found to be facilitators to adolescents seeking and utilizing RHS in the current study. The adolescents preferred obtaining contraceptives from sources such as the local shops or supermarkets, patent medical stores and pharmacies. Adolescents felt that their privacy and confidentiality were respected by these sources, which was the reason they rather went to these sources to obtain contraceptives than visit public health care centres. They did not trust that health workers would maintain their privacy and confidentiality. This finding is consistent with a study conducted in Ghana on adolescents' use of contraceptives where adolescents preferred to purchase contraceptives from pharmacies instead of going to the health facility because of lack of confidentiality (Boamah et al, 2014).

Many adolescents in the current study acknowledged they did not feel comfortable speaking with a provider who was not of the same sex as themselves. Other studies have concurred with the finding of adolescents being uncomfortable with health workers of the opposite sex (Biddlecom et al 2007; Rice, 2000). Gender norms are responsible for adolescents feeling reluctant and embarrassed to share sexual health problems with health workers of the opposite sex (Upadhyay, 2016). This attitude was more common among the female participants in this study, who felt embarrassed to speak up about their sensitive and private reproductive health concerns with a health worker of the opposite sex. This attitude also related to cultural and religious norms that restrict interactions between the opposite sexes. This highlights the need for taking into consideration the cultural and religious beliefs of adolescents and the community at large in designing and implementing adolescent RH programs. There is also a need for undertaking research to identify effective interventions that can address these cultural and religious beliefs that influence utilization of RHS by adolescents.

5.2.3 Behaviour

This study shows that some of the adolescents feared to discuss their sexual health problems with anyone. This was consistent with a study conducted in Pakistan where adolescents expressed fear about discussing their sexual health problems with anyone (Talpur & Khowaja, 2012). On the other hand, some of the adolescents in the current study felt more comfortable discussing RH issues with their friends than consulting the RH clinics.

The findings of this study also show that when faced with RH problems some adolescents delayed taking action and only did when these problems persisted. This was due to the fear of stigmatization from family and the community. This delay has been similarly reported in other studies in Burkina Faso, Ghana, Malawi and India where adolescents were not willing to seek SRH services until the problem became severe (Biddlecom et al, 2007, Cherie & Berhane, 2012).

The behaviour of adolescents in the current study was influenced by family and community norms about ARHS. Evidence from literature has shown that community-based interventions can contribute to enhancing positive experiences of adolescents regarding RHS utilization (Campbell & Cornish, 2010). These include interventions aimed at changing the negative community perceptions and community participation in providing care for adolescents.

5.3 Social level

Themes related to social norms were identified as determinants of access to and utilization of ARHS as highlighted by the adolescents and the service providers in this study. Social norms could be understood broadly as ‘widely shared beliefs and common practices within a particular group’ (Jiang & Marcus, 2015). Social norms relate to social identities which influence young people’s sexual behaviours and SRH (UNICEF, 2012). These could be family, community or religious influences. The social consequence that results from nonconformity to accepted social norms is social stigma (Schroeder & Graziano, 2015). Social norms and stigma have been shown to play significant roles in decision making among adolescents regarding RH (Smith et al, 2016).

5.3.1 Family norms

The current study found that adolescents respected their family values and what their parents thought about adolescents making use of RHS, which influenced their use of the services. Adolescents commonly reported that parents had negative attitudes towards adolescents having

premarital sex. Discussion with parents about sex was viewed as a taboo and as such adolescents found it virtually impossible to discuss SRH issues with their parents. This was similar to the findings of a study conducted by Amuyunzu-Nyamongo et al. (2005) on adolescents' views of SRH in sub-Saharan Africa. They reported that adolescents were shy to talk to parents about sex-related matters and were ashamed to access SRHS because they felt their parents would disapprove of their sexual behaviour. Literature has shown that in many African communities individual behaviour is strongly influenced by family norms (Biddlecom, Awusabo-Asare & Bankole, 2009). The findings on family norms in the current study emphasize the need for parental programs designed to enlighten parents with accurate and comprehensive information that can strengthen parents support for their children and how they can communicate effectively with their children on sensitive SRH issues. A systematic review of intervention studies designed to improve parent's ability to communicate with their children found that compared to the control group parents who participated in such interventions experienced remarkable improvements in the quality and efficacy for communicating to their adolescent children about SRH issues (Akers, Holland & Bost, 2011).

5.3.2 Community norms

The responses of the adolescents in this study indicated that the community disapproved of adolescents who made use of RHS and as such adolescents stayed away from these services for fear of being considered promiscuous. The finding is comparable to the findings of a study conducted by Mmari et al (2016) that revealed that adolescents were afraid of being seen by members of their families and the neighbourhood when utilizing RHS. The adolescents believed they would be stigmatized for seeking services which their society did not approve of. Another study conducted in Iran on young unmarried women found that the fear of being labeled as promiscuous and discriminated by the society left women feeling ashamed of receiving RHS (Mohammadi, 2016). This was also apparent in the current study where some adolescents initially did not admit to accessing RHS during the interviews. They however admitted later to have accessed RHS after further probing. The affiliation of adolescents utilizing RHS with adolescents engaging in sexual activity has played a role in contributing to the stigmatization associated with ASRH services (Hagey et al, 2015; PAHO, 2013). The law in Nigeria considers a person less than 18 years as a minor; that such persons have limited legal capacity and in many situations would require a legally authorized surrogate decision maker (parent, guardian or

family member) to act on their behalf (Federal Government of Nigeria, 1999). The Nigerian constitution also recognizes married adolescents who are below the age of 18 years as emancipated minors. This means that they are free from care and control by their parents and can take responsibility for their own care. However, in Nigeria, especially in the northern regions, married women cannot take decisions for themselves (includes accessing contraception) without the approval of their husbands, who are regarded as the head of the family, (Anyanti, Daroda, Khan, Oguntunde & Sinai, 2017). This can impede married women from accessing contraceptives. However, there are some women who access contraception without their husband's consent (Akinyemi, Aransiola, & Fatusi, 2014; Fonn, Kandala, Petzold, Ravindran & Viswan, 2017).

The findings of the current study highlight the importance of the creation of a conducive social environment that is supportive of ASRH services with interventions focusing on community norms around ASRH. A descriptive review of the effectiveness of initiatives to improve adolescents utilization of SRHS in low-income countries concluded that programs that promote access to and uptake of ASRH services are most effective when adolescent-friendly facility-based approaches are combined with community acceptance and demand-generation activities (Denno et al, 2015).

5.3.3 Religious norms

The findings of this study show that adolescents were to a large extent also influenced by religious norms which impacted on their utilization of RHS. The adolescents were subject to religious norms that tended to view the use of contraceptives among unmarried adolescents as sinful. Adolescents in the study admitted to feeling guilty for having sexual intercourse because they felt that it was wrong based on their religious beliefs. This religious belief was shared by both the Christian and Muslim adolescents. This belief was similar to findings of a study conducted in Ghana where adolescents reported that their religious doctrines frowned upon contraception and/or abortion and as such, they deterred from using RHS (Addo & Gyamfuah, 2015).

Religious norms also limited open discussions on ASRH health issues in the current study. Many of the adolescents had not discussed their RH issues with their parents since it was viewed as a religious taboo to do so. This finding is similar to studies carried out in other African settings

where religious taboos inhibit parents from openly discussing SRH issues with their children (Ayehu, Kassaw & Hailu, 2016; Tegegn, 2009; Wamoyi, Fenwick, Urassa, Zaba & Stones, 2010). Religious inhibitions to adolescents in the current study accessing RH information and services highlights the need to implement sensitization and enlightenment programs targeted at religious leaders. Evidence has shown that involving religious leaders in ASRH programs improves community acceptance of ARHS (Aninanya et al, 2015, Kesterton & De Mello, 2010). It is also important that ASRH programs always consider religious contexts during designing of such programs in order to ensure that religious factors that hinder the adolescents from accessing RHS are addressed.

5.3.4 Stigma related to adolescent sexual and reproductive health services

Many of the adolescents in this study preferred to access services outside the health centres in order to overcome the stigma attached to accessing RHS services. This is in agreement with findings of a study conducted by Kambikambi in Zambia (2014) who concurred that the fear of being in a general waiting room with all the other patients, with the possible stigma attached to ARHS, discourages young people from accessing these services. Another study conducted in Ethiopia showed that adolescents found it embarrassing and difficult to access services because they felt the services were stigmatizing and would rather use services outside of their residential areas where they were not known. This was in order to overcome the stigma attached to going to youth specific services in their residential area (Berhane & Fantahun, 2005). The adolescents in the current study felt that there is a need to intensify advocacy efforts to address persistent social and cultural norms underpinning stigmatizing attitudes towards adolescents seeking SRHS. Culturally informed approaches have been shown to address the stigma and discrimination experienced by adolescents in relation to their SRH. For example, the Zambia Integrated Health Programme's (2003) systemic community-based approach to challenging stigma and promoting positive social norms by building local leadership and creating dialogue around matters relating to ASRH. The Marie Stopes International's MSI programs (2016) adopted strategies such as stakeholder engagement, using media to disseminate key adolescent health messages, organizing parent workshops and using trained parent peer-educators to educate and support parents in the community on issues related to ASRH.

5.3.5 Financial constraints

Financial constraints also emerged as a social level barrier to adolescents' access to and utilization of RHS in this study. Adolescents discussed how the economic status of their families affected their utilization of RHS. These were related to being unable to afford transportation costs to and from the health facilities and the cost of services. Findings from a study conducted in Nepal regarding barriers to adolescents' utilization of RHS, similarly concurred with the finding of this study that financial constraint is a major barrier to adolescent's utilization of RHS (Regimi, 2010). Similarly, adolescents in a study conducted in the Republic of Vanuatu (an island located in the South Pacific Ocean) admitted that cost of RHS, commodities and transport were hindrances to access services due to lack of finances (Kennedy et al, 2013). The implication of this finding is that there is need to initiate interventions to address economic barriers that adolescents face in accessing RHS which could be by providing commodities and services for free or at a reduced cost for adolescents. An intervention study was performed among poor adolescents in Nicaragua in which vouchers that gave free access to SRH care were distributed in health centres (Meuwissen, Gorter & Knottnerus, 2006). The voucher program succeeded in increasing access to SRH care for poor and underserved girls.

5.4 Health system level

5.4.1 Health worker attitude

One of the major reasons behind why adolescents in the current study were not accessing the health facilities was fear about how they would be treated by health workers. Adolescents in the study felt that health providers did not keep confidential the information that was told to them. This was similar to findings of a study conducted in Nepal where the majority of the adolescents believed that health workers do not maintain confidentiality and do not behave professionally when adolescents share their sexually related health problems with them. (Regimi et al, 2010). Some adolescents in the current study also confirmed that they were treated badly by health workers when they went to access RHS. Negative attitudes cited by adolescents in the current study included being shouted at, not given an opportunity to explain themselves and health workers having a judgmental approach. Health professionals' negative attitudes toward adolescents also have been evident in a number of studies as a hindrance to adolescents accessing RHS. For example, a study conducted in Kwazulu-Natal, South Africa among

adolescents reported on the unfriendly and judgmental attitude of health workers towards adolescents (Alli, 2013). A review of evidence regarding the attitude of health workers towards adolescent SRHS in developing countries also concluded that the unprofessional attitude of health care professionals inhibited adolescents from gaining access to SRHS in developing countries (Chilinda, 2014). It was recommended the health workers should be specifically trained to take care of the RH needs of the adolescents.

On the other hand, a few of the adolescents in the current study were facilitated to access RHS because of the friendly and welcoming attitude of some health workers. They attested to being treated well and were satisfied with the services they received. This was similar to findings of studies conducted in India and Kenya and where positive health provider attitude was found to facilitate adolescents' utilization of RHS (Godia, 2014; Mehra, Sogarwal & Chandra, 2013). Health workers can therefore play dual roles in either promoting or hindering adolescents' access to and utilization of RHS by the attitude they decide to adopt. Supportive attitudes tend to encourage adolescents' utilization of services, while unfriendly and judgmental attitudes discourage adolescents from accessing and utilizing RHS.

5.4.2 Inconvenient hours of operation

Another significant barrier to adolescents accessing and utilizing RHS in the current study was the issue of having clinics open at times when adolescents could not conveniently attend. Adolescents complained that operation hours of clinics usually corresponded with the time they are meant to be at school. This finding is similar to what was reported in a study done to assess the sexual reproductive health needs of the adolescents, where the non-flexible opening and closing hours of facilities hindered accessibility to and utilization of RHS by adolescents in Uganda (Atuyambe et al, 2015) and Zambia (Kambikambi, 2014). The finding highlights the need for extending operating hours of health centres to meet the needs of the in-school adolescents.

5.4.3 Inadequate resources for provision of RHS

The findings of the study indicate that the lack of adequate resources for the provision of ARHS was a barrier to adolescents' utilization of RHS. These included lack of human resources, equipment and availability of medical supplies. This was similar to findings of the study conducted in the Republic of Vanuatu where adolescents reported that unreliable commodity

supply (of medicines and contraceptives) were barriers to utilization of RHS (Kennedy et al, 2013).

Health workers in the current study also complained that staff shortages, lack of space and lack of adequate supplies and equipment were barriers that hindered efficient RHS delivery to adolescents. A study conducted in Kenya that explored the perceptions and experiences of health service providers in providing RHS to young people similarly found the lack of essential equipment and supplies (medication, contraceptives) as service barriers to the provision of RHS to adolescents (Godia et al, 2013). This also concurred with Choka's study (2011) on teenage girls' utilization of ARHS in Zambia, who established that staff shortages and heavy workload affected access to and utilization of RHS and the ability of the service providers to provide effective service adolescents. These findings indicate that health systems need interventions that can tackle resource barriers (human and material) for the provision of efficient ARHS.

5.5 Adolescents sexual reproductive health decision-making and multi-level influences

The multiple level factors described by adolescents in the current study together influenced the SRH decision-making capacity of adolescents regarding utilization of RHS. For instance, family norms and community norms regarding the unacceptability of adolescent sex founded in broader religious norms negatively affected adolescents' decision to use RHS. This often resulted in secret-keeping and avoidance of seeking reproductive health information and contraceptive services at health facilities. This, in turn, contributed not only to unmet needs for SRH information but perceptions that sex and contraceptive use are "bad girl" and also "bad boy" behaviours. Negative attitudes from health workers also contributed to the decisions of adolescents to avoid seeking RHS at health facilities for fear of being scolded and misjudged. Health worker attitudes to adolescents were also founded in religious and cultural norms. These findings were consistent with a study conducted in Ghana where the decision of adolescents to use family planning methods and services were affected mostly negatively by factors operating within and across family, community and structural level factors that discouraged adolescents from utilizing RHS (Challa et al. 2017). This highlights the need for promoting a safe and supportive environment that affords adolescents the opportunity to promote healthy decisions making with regard to their RH. Evidence has shown that when families and communities are

supportive to adolescents they are empowered to make good decisions about their RH and come out with better RH outcomes (Denno et al, 2015; Kesterton & De Mello, 2010).

5.6 Sexual and reproductive health rights of adolescents

Though exploration of the opinions of adolescents and health providers on the SRH rights of adolescents were not within the scope of the current study, the finding shows that the reproductive health rights of both the male and female adolescents were infringed upon. Adolescents in the study did not have adequate access to comprehensive reproductive health information and services. They also did not have autonomy in decision making concerning the reproductive health issues. The reason for this was because family, community members and religious leaders do not support sexual activity in adolescence and religious beliefs prohibit discussion about sex or sex-related issues in adolescents. This violates the rights of adolescents to comprehensive sexual information and education. Adolescents are thus denied the right to make safe and informed decisions which affect their RH and wellbeing. The judgmental and unfriendly attitudes of health workers in the health facilities toward both male and female adolescents seeking RHS like contraception, abortion and treatment of STDs also violate the rights of these adolescents to RHS. It is crucial to start planning for comprehensive sexual and reproductive health programs to improve their health and attain their rights. Evidence concurs that adolescents experience barriers to their SRH rights such as lack of knowledge and unsupportive environments due to cultural and religious beliefs (Hindin & Fatusi, 2009; Jejeebhoy, Zavier & Santhya, 2013). In order to overcome these barriers, a number of interventions that have been recommended in the ICPD Program of Action, and are being implemented in diverse countries (UNFPA, 2014). Some of these interventions include improving access to health promoting information and comprehensive sexuality education, improving access to SRH services and creating an enabling environment for adolescents.

5.7 Conclusion

The current study reveals that individual level factors like inadequate knowledge about types of RHS, poor attitudes towards RHS and certain behaviour of adolescents themselves impacted negatively on the way adolescents utilized RHS. Some of these factors were influenced by social level factors. Factors such as family norms, community norms, religious norms, financial

constraints and stigma associated with adolescents' use of RHS negatively influenced their usage of RHS. Parents especially had a strong influence on adolescents' utilization of RHS in this study. Parental attitude to adolescents' utilization of RHS can also be linked to community and religious norms that prohibit adolescents' utilization of these services. Health system factors such as poor health workers attitude and inconvenient opening hours were also found to hinder adolescent access and utilization of RHS. Adolescents therefore miss out on opportunities of being informed about reproductive health and services which infringe on their SRH rights

It is clear from the findings of this study and from elsewhere that access to and utilization of ASRH services is a complex issue as there are various multi-level influences which are interrelated. Effective interventions to improve access to and utilization of ARHS must therefore influence multiple levels. Erulkar and Muthengi's study (2009) from rural Ethiopia provides an example that positive impacts can be obtained even in difficult environments provided programs are designed that adequately address the different complexities of the situation and the specific needs of adolescents. Adolescents would use RHS if they are made to feel welcome and comfortable with the services. The adolescents in the current study attested to this fact. To adequately maintain the likelihood of adolescents accessing and utilizing RHS intervention programs should be designed to address in combination these levels of interrelated influences between the individual and his/her environment.

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CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study was conducted because there was a gap in information on the factors influencing adolescents' access to and utilization of RHS in Kaduna North LGA, Kaduna, Nigeria. The aim of the study was to explore the factors that influence adolescents' access to and use of RHS in Kaduna North LGA. Its objectives were as follows:

1. To explore factors that facilitate access to and utilization of RHS in the LGA.
2. To explore the barriers experienced by adolescents in accessing and utilizing RHS in the LGA.
3. To explore adolescents and key informants opinions on how to improve access to and utilization of RHS in the LGA.

The findings of the study indicate that adolescents' access to and utilization of RHS was low in Kaduna North LGA. The adolescents' experiences of accessing and utilizing SRHS were influenced by factors located within the adolescents and also beyond what they could control. The adolescents faced barriers to utilization of RHS which were explored across the three specified levels of the modified social ecological model (individual, social and health system level factors). Individual factors that influenced access and utilization of RHS included adolescents' lack of knowledge about types of RHS and poor attitudes towards RHS. Social factors included family norms, community norms, religious norms that were against adolescents' sexual activity and use of RHS. Health system factors such as the poor attitude of health workers and inconvenient operating hours of health facilities negatively influenced adolescents' access to and utilization of RHS. On the other hand, facilitators to adolescents' utilization of RHS were few but included respect of confidentiality and privacy; and the friendly and welcoming attitude of some health workers.

The decision making ability of adolescents in the study to use contraceptives and RHS were influenced mostly negatively, by the various factors operating within and across each level of the SEM. The adolescents' limited knowledge about SRH is tied to the reluctance of parents at home, teachers in school and even health workers in health facilities to discuss SRH issues with adolescents. This ultimately stems from the strong cultural norms and religious norms that

discourage adolescent sexual activity and utilization of RHS. These adolescents also being products of the same society rarely access the available services due to these cultural and religious norms. Understanding these contextual factors and adopting interventions that could address the multiple interrelated factors can go a long way to strengthen services tailored to the needs of adolescents as well as address their SRH needs and rights.

6.2 Recommendations

Based on these findings the following recommendations can be considered to improve adolescents' access and utilization of RHS:

6.2.1 Reaching adolescents with information and education about ARHS

There is a need to focus on equipping adolescents by providing them with correct and comprehensive SRH information which can have life-long protective benefits for them. Schools can be used as avenues to make sexuality information accessible to adolescents. There is a need for the development of a comprehensive culturally sensitive school-based SRH education program. This program can help to address the gaps in knowledge about SRH and services. In addition, the program should have information on relationships with parents and all areas that are sensitive to adolescents such as religious and cultural norms. The Ministry of Health needs to collaborate with all the relevant stakeholders to disseminate information on the available services using the mass media, Information, Education and Communication materials and workshops for adolescents. Programs that reach out to adolescents within their community to provide community-based reproductive health education and services should be developed. This would enhance access to readily available information and services right at their doorstep rather than having to wait for adolescents to go to the health facilities for services.

6.2.2 Fostering supportive environments for positive ASRH development

There is a need to build relationships that support and reinforce positive health behaviours of adolescents. This includes building close relationships between adolescents and their parents that support and reinforce positive health behaviours of adolescents. Interventions can be implemented that target parents of adolescents such as parental education on ASRH issues, facilitating parent-child communication and parental involvement in planning ASRH programs. This could be facilitated by the Departments of Health and Social Services. There is also need

for interventions aimed at broader community members and institutions outside the family like in neighbourhoods, schools, churches, mosques and workplaces. Such interventions should include conducting community sensitization campaigns and community adolescent health education programs. These interventions are needed to create positive social norms and community support for adolescents to practice safer behaviours and access SRH information and services. In addition, traditional authorities and religious authorities should be involved in the planning of these community-based ASRH interventions to address issues related to social and religious norms.

6.2.3 Improving the quality of adolescent health service delivery

There is need to improve the PHCC capacity to provide comprehensive adolescent-friendly RHS. Training should be provided for health workers to equip them with current knowledge and practices needed to deliver adolescent-friendly health services. There is the need for the establishment of adolescent-friendly clinics to cater for the specific needs of adolescents, including their preference to be attended to by a health worker of a gender of their choice. The government should provide adequate resources for the provision of ARHS. This should cut across human and material requirements such as adequate manpower, drug and contraceptive supplies and educational materials for passing correct RH information to adolescents and the community at large. In addition, effort should be made to make operating hours of RH facilities flexible to accommodate adolescents' needs such as later opening times to access the services after school and also over weekends.

6.2.4 Enhancing participation of adolescents in addressing their sexual and reproductive health needs

It is important to recognize that adolescents can play an active role in their own SRH by giving voice to their own needs and rights. Adolescents should be involved in the designing, planning and implementation of ASRH programs in their communities. Adolescent reproductive health programs should not be developed for adolescents but with adolescents.

6.3 Implications for future research

This study has addressed an important public health issue by focusing on ASRH. It has contributed relevant information that can help narrow the gap about the factors that affect

adolescents' access to and utilization of RHS in Kaduna, Nigeria. However, more research needs to be done to gain more insight into the adolescents' access to and utilization of RHS in the following areas:

1. A study is recommended to compare the use and non-use of RHS among adolescent males and females as this was not reported on in this study.
2. A study is also recommended to explore how the social and cultural norms of the community can be more supportive of ASRH needs
3. A study to explore how much adolescents know about their health rights is also important
4. It is recommended that a study is done to assess to what extent the National Adolescent Health Policy has been implemented in keeping with the ICPD recommendations which it is based on.



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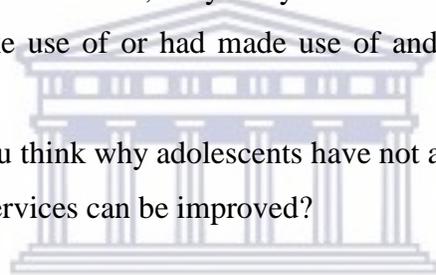
APPENDICES

APPENDIX 1: INTERVIEW GUIDE FOR ADOLESCENTS

1. What do you understand by reproductive health services?
Probe: Can you tell me some of the reproductive health services that you know about?
2. Do you think that it is necessary for adolescents like you to be provided with reproductive health services? *Probe:* What are reasons for your thought?
3. Can you please tell me about the reproductive health services available in your community? *Probe:* What kind of service is provided for adolescents such as yourselves?
4. Can you tell me about where these reproductive health services are offered? *Probe:* Where can adolescents can obtain these reproductive health services in your community?
5. Can you tell me if you have you ever accessed and used these services from any of the places that you mentioned? If yes, would you share your experience with the services offered? What was your impression about the services offered? *Probe:* Can you tell me more about the whole process what you went through and how you felt during your visit? What was good, what was bad? What did you think about the place and the attitude of the staff? Were you satisfied with the service? If not, why?
6. In your opinion, what encourages adolescents like you to make use of reproductive health services?
7. In your opinion, what discourages adolescents like you from making use of reproductive health services? *Probe:* on social, cultural and physical barriers
8. How would you like to see adolescent reproductive health services offered?

APPENDIX 2: INTERVIEW GUIDE FOR SERVICE PROVIDERS

1. What reproductive health services do you provide to adolescents? *Probe* on type of services offered, opening time and how often.
2. What is your opinion on the use of the services by adolescents? *Probe* Is it a good or wrong? Are there any of the services that should not be provided to adolescents? If so, Why? What is your attitude towards contraceptive promotion and provision for adolescents?
3. What is your opinion on the services provided? *Probe* whether adequate and accessible for the adolescents?
4. What are your experiences in promoting and providing these services?
5. Why do you think adolescents attend your services? Do adolescents have preference for certain services over others? If so, why do you think so? Are there any services that adolescents do not make use of or had made use of and discontinued? If so, why you think so?
6. What are the reasons you think why adolescents have not accessed public RHS?
7. How do you think the services can be improved?



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APPENDIX 3: PARTICIPANT INFORMATION SHEET FOR ADOLESCENTS



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INFORMATION SHEET

Title of research: ACCESS TO AND UTILIZATION OF REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENTS IN KADUNA NORTH LOCAL GOVERNMENT, KADUNA STATE, NORTH-WEST, NIGERIA.

What is this study about?

This is a research project being conducted by Awawu Grace Nmadu at the University of the Western Cape. We are inviting you to participate in this research project because you can provide important information on access and utilization of adolescent reproductive health services by adolescents. The purpose of this research project is to gain insight into the experiences of adolescents' access to and utilization of reproductive health services. It is hoped that with your participation, an understanding of what influences the access and utilization of adolescent reproductive health services will be elicited which can help improve such services in the local government area.

What will I be asked to do if I agree to participate?

You will be asked to participate in an interview with the researcher. During the interview you will be asked to share your opinions and experiences about what makes it easy or difficult for adolescents to access and utilize sexual and reproductive health services and how you think these services can be improved. During the interview we will be taking notes of our discussion and will also use an audio tape recorder in order to adequately collect all the information that is needed for the study. The interviews will not take more than one hour and the interviews will take place in a private room in your clinic.

Would my participation in this study be kept confidential?

We will do our best to keep your personal information confidential. To help protect your confidentiality, your real name will not be used during the interview or on any documents related to the research, but instead we will use a pseudonym. This pseudonym will be used by the researcher to link the transcript to your identity and no one other than the researcher will have access to this information. The transcripts will be kept in a lockable filing cabinet and we will use password protected computer files. The audio-tapes will be kept under lock and key no one other than the researcher and the transcriber will have access to them.

If we write a report or article about this research project, your identity will be protected to the maximum extent possible.

What are the risks of this research?

All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimize such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. The possible risk of participating in the study might be that of discomfort, also embarrassment when you disclose certain information which you might consider personal, which could raise unwanted emotions or sensitivities. You may refuse to answer any question or not take part in a portion of the interview if you feel the question(s) are too personal or if responding to them makes you uncomfortable.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the researcher learn more about adolescents' access to and utilization of reproductive health services. We hope that, in the future, other people might benefit from this study through improved understanding of factors that influence adolescents' access to and utilization of reproductive health services. We hope that the information we will gain from you may help in improving ASRH service delivery for all adolescents in the local government area and contribute to improving the health status of adolescents in your community.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is entirely voluntary, which means that you do not have to participate if you do not want to. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?

This research is being conducted by Dr. Awawu Grace Nmadu, School of Public Health at the University of the Western Cape. If you have any questions about the research study itself, please contact:

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I am accountable to Dr Suraya Mohamed, my supervisor. Her contact information is as follows:

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Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

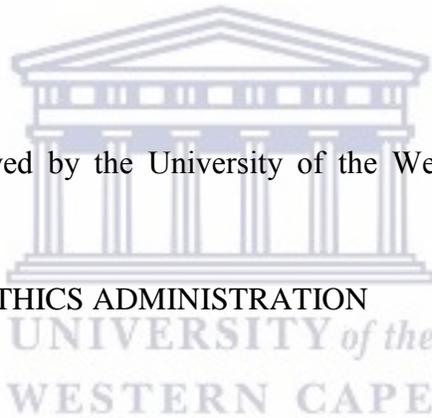
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This research has been approved by the University of the Western Cape's Senate Research Committee.

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APPENDIX 4: PARTICIPANT INFORMATION SHEET FOR KEY INFORMANTS



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INFORMATION SHEET FOR KEY INFORMANTS

Title of research: ACCESS TO AND UTILIZATION OF REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENTS IN KADUNA NORTH LOCAL GOVERNMENT, KADUNA STATE, NORTH-WEST, NIGERIA.

What is this study about?

This is a research project being conducted by Awawu Grace Nmadu at the University of the Western Cape. We are inviting you to participate in this research project because you are an adolescent reproductive health service provider and can provide important information on access and utilization of adolescent reproductive health services. The purpose of this research project is to gain insight into the experiences of adolescents' access to and utilization of reproductive health services. It is hoped that with your participation, an understanding of what affects the access to and utilization of adolescent reproductive health services will be elicited which can help improve such services in the local government area.

What will I be asked to do if I agree to participate?

You will be asked to participate in an interview with the researcher. You will be asked about the type of services you offer, your perception of quality of services offered and adolescents who seek reproductive health services and about suggestions on how to improve these services.

During the interview we will be taking notes of our discussion and will also use an audio tape recorder in order to adequately collect all the information that is needed for the study. The interviews will not take more than one hour and the interviews will take place at your clinic.

Would my participation in this study be kept confidential?

We will do our best to keep your personal information confidential. To help protect your confidentiality, your real name will not be used during the interview or appear on any documents related to the research, but instead we will use a pseudonym. This pseudonym will be used by the researcher to link the transcript to your identity and no one other than the researcher will have access to this information. The transcripts will be kept in a lockable filing cabinet and we will use password protected computer files. The audio-tapes will be kept under lock and key no one other than the researcher and the transcriber will have access to them.

If we write a report or article about this research project, your identity will be protected to the maximum extent possible.

What are the risks of this research?

All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimize such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study.

What are the benefits of this research?

This research is not designed to help you personally, however, the results may help the researcher learn more about adolescents' access to and utilization of reproductive health services. We hope that the information we will gain from you may help in improving ASRH service delivery for all adolescents in the local government area and contribute to improving the health status of adolescents in your community. Refreshments will be provided after the interviews.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?

This research is being conducted by Dr. Awawu Grace Nmadu, School of Public Health at the University of the Western Cape. If you have any questions about the research study itself, please contact:

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APPENDIX 5: INFORMATION LETTER FOR PARENTS



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INFORMATION LETTER FOR PARENTS

Title of research: ACCESS TO AND UTILIZATION OF REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENTS IN KADUNA NORTH LOCAL GOVERNMENT, KADUNA STATE, NORTH-WEST, NIGERIA.

Dear Parent(s) or Guardian(s):

What is this study about?

This is a research project being conducted by Awawu Grace Nmadu at the University of the Western Cape. We are writing to ask your permission for your child to participate in this research project. The purpose of this research project is to gain insight into the experiences of adolescents' access to and utilization of reproductive health services. It is hoped that with your child's participation, an understanding of what influences the access and utilization reproductive health services by adolescents will be elicited which can help improve such services in the local government area.

What will be required of your child if you agree for him/her to participate?

You child will be asked to participate in an interview with the researcher. During the interview he/she will be asked to share their opinions and experiences about barriers and facilitators to adolescents' access and use of sexual and reproductive health services and how they think adolescent reproductive health services can be improved. During the interview we will be taking notes of our discussion and will also use an audio tape recorder in order to adequately collect all the information that is needed for the study. The interviews will not take more than one hour and the interviews will take place in a private room at the primary health care facility.

Would your child's participation in this study be kept confidential?

We will do our best to keep your child's personal information confidential. To help protect your child's confidentiality, his/her real name will not be used during the interview or on any documents related to the research, but instead we will use a pseudonym. This pseudonym will be used by the researcher to link the transcript to your child's identity and no one other than the researcher will have access to this information. The transcripts will be kept in a lockable filing cabinet and we will use password protected computer files. The audio-tapes will be kept under lock and key no one other than the researcher and the transcriber will have access to them.

If we write a report or article about this research project, your child's identity will be protected to the maximum extent possible.

What are the risks of this research?

All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimize such risks and act promptly to assist your child if he/she experiences any discomfort, psychological or otherwise during the process of their participation in this study. The possible risk of participating in the study that your child might experience may be that of discomfort or embarrassment from disclosing certain information which they might consider personal, which could raise unwanted emotions or sensitivities. They may refuse to answer any question or not take part in a portion of the interview if they feel the question(s) are too personal or if responding to them makes them uncomfortable.

What are the benefits of this research?

This research is not designed to help your child personally, but the results may help the researcher learn more about adolescents' access to and utilization of reproductive health services. We hope that, in the future, other people might benefit from this study through improved understanding of factors that influence adolescents' access to and utilization of reproductive health services. We also hope that the information we will gain may help in improving ASRH service delivery for all adolescents in the local government area and contribute to improving the health status of adolescents in your community.

Does your child have to be in this research and may they stop participating at any time?

Your child's participation in this research is entirely voluntary. If you decide to allow your child to participate in this research, he/she may stop participating at any time. If you decide not to allow your child to participate in this study or if your child stops participating at any time, he/she will not be penalized or lose any benefits to which they otherwise qualify.

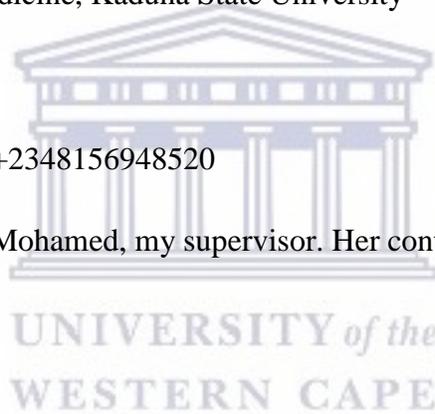
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Appendix 6: CONSENT FORM FOR ADOLESCENTS



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Private Bag X 17, Bellville 7535, South Africa

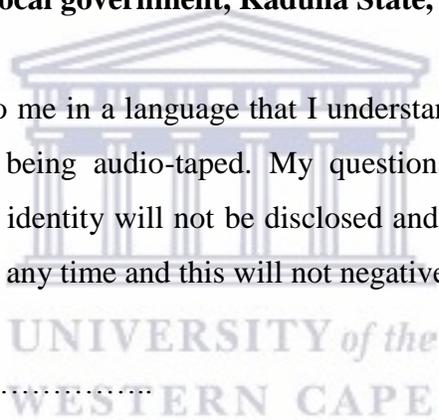
Tel: +27 21-959 2809 Fax: 27 21-959 2872

E-mail: soph-comm@uwc.ac.za

CONSENT FORM

Title of Research Project: Access to and utilization of reproductive health services among adolescents in Kaduna north local government, Kaduna State, North-west, Nigeria.

The study has been described to me in a language that I understand and I freely and voluntarily agree to participate including being audio-taped. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.



Participant's name.....

Participant's signature.....

Witness.....

Date.....

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

Research Office

New Arts Building,

C-Block, Top Floor, Room 28

Appendix 7: CONSENT FORM FOR KEY INFORMANTS



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

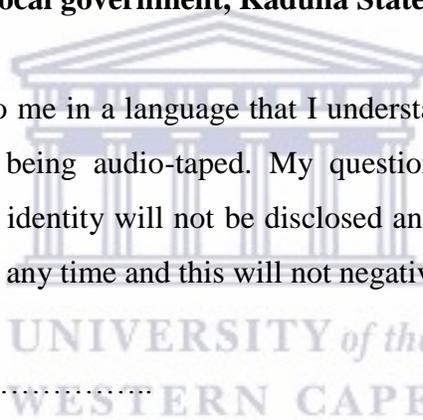
Tel: +27 21-959 2809 Fax: 27 21-959 2872

E-mail: soph-comm@uwc.ac.za

CONSENT FORM

Title of Research Project: Access to and utilization of reproductive health services among adolescents in Kaduna north local government, Kaduna State, North-west, Nigeria.

The study has been described to me in a language that I understand and I freely and voluntarily agree to participate including being audio-taped. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.



Participant's name.....

Participant's signature.....

Witness.....

Date.....

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

Research Office

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C-Block, Top Floor, Room 28

Appendix 8: PARENTAL PERMISSION FORM



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

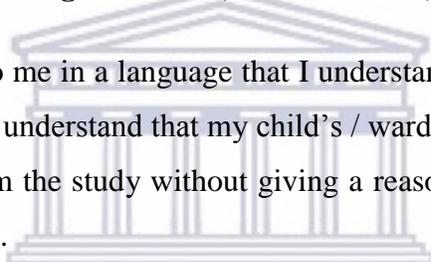
Tel: +27 21-959 2809 Fax: 27 21-959 2872

E-mail: soph-comm@uwc.ac.za

PARENTAL PERMISSION FORM

Title of Research Project: Access to and utilization of reproductive health services among adolescents in Kaduna north local government, Kaduna State, North-west, Nigeria.

The study has been described to me in a language that I understand and I freely give consent for my child / ward to participate. I understand that my child's / ward's identity will not be disclosed and that she may withdraw from the study without giving a reason at any time and this will not negatively affect her in any way.



Parent's/Guardian's name.....

Parent's/Guardian's signature.....

Witness.....

Date.....

Should you have any questions regarding this study or wish to report any problems your child / ward has experienced related to the study, please contact the study coordinator:

Dr. Awawu Grace Nmadu
Department of Community Medicine,
Kaduna State University
Kaduna
Tel:08034512307
E-mail: jumainmadu@yahoo.com

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

Research Office

New Arts Building,

C-Block, Top Floor, Room 28



UNIVERSITY *of the*
WESTERN CAPE

Appendix 9: ASSENT FORM



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2809 Fax: 27 21-959 2872

E-mail: soph-comm@uwc.ac.za

ASSENT FORM

Title of Research Project: Title of Research Project: Access to and utilization of reproductive health services among adolescents in Kaduna north local government, Kaduna State, North-west, Nigeria.

The study has been described to me in a language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.

Participant's name.....

Participant's signature.....

Witness.....

Date.....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

Dr. Awawu Grace Nmadu

Department of Community Medicine,

Kaduna State University

Kaduna

Tel:08034512307

E-mail: jumainmadu@yahoo.com

BIOMEDICAL RESEARCH ETHICS ADMINISTRATION

Research Office

New Arts Building,

C-Block, Top Floor, Room 28



UNIVERSITY *of the*
WESTERN CAPE

Appendix 10: Approval letter from University of the Western Cape Biomedical Research Ethics Committee



OFFICE OF THE DIRECTOR: RESEARCH
RESEARCH AND INNOVATION DIVISION

Private Bag X17, Bellville 7535
South Africa
T: +27 21 959 2988/2948
F: +27 21 959 3170
E: research-ethics@uwc.ac.za
www.uwc.ac.za

13 March 2017

Dr AG Nmadu
School of Public Health
Faculty of Community and Health Sciences

Ethics Reference Number: BM16/4/7

Project Title: Access to and utilization of reproductive health services among adolescents in Kaduna North local government, Kaduna State, North-West, Nigeria.

Approval Period: 13 March 2017 – 13 March 2018

I hereby certify that the Biomedical Science Research Ethics Committee of the University of the Western Cape approved the scientific methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval. Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

The permission from the health facility and/or health department must be submitted for record keeping to BMREC.

A handwritten signature in blue ink that reads 'Josias'.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

PROVISIONAL REC NUMBER -130416-050

Appendix 11: Approval Letter from Ethics Committee Ministry of Health Kaduna State, Nigeria



MINISTRY OF HEALTH AND HUMAN SERVICES
KADUNA STATE, NIGERIA

MOH/ADM/744/VOL.1/421

10TH October, 2016

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NOTICE OF APPROVAL AFTER FULL COMMITTEE REVIEW

**ACCESS AND UTILIZATION OF REPRODUCTIVE HEALTH SERVICES AMONG
ADOLESCENTS IN KADUNA NORTH LOCAL GOVERNMENT, KADUNA STATE, NORTH –
WEST, NIGERIA.**

Name of Principal Investigator: DR. AWAWU GRACE NMADU
Address of principal Investigator: No. 12, Emir Road, off Rimi Drive
Ungwar Rimi, Kaduna.
Date of receipt of application: 5th September, 2016
Date of Ethical Approval: 6th October, 2016

This is to inform you that the research described in the submitted protocol, the consent forms, advertisements and other participant information materials have been reviewed and given full approval by Health research Ethics Committee (HREC).

If there is delay in starting the research or any change, inform the HREC so that the dates of approval can be adjusted accordingly.

However, Researcher is kindly requested to submit a copy of his/her findings to the State Ministry of Health, please.


DR. BUTAWA NN
Secretary.
For: Chairman

Independence Way, P.M.B 2014, Kaduna, Kaduna State-Nigeria
Tel: +234 (0) 818 407 8693 | Website: www.kdsg.gov.ng | Email: health@kdsg.gov.ng

Appendix 12: Permission letter from PHC Department Kaduna North Local Government


KADUNA NORTH LOCAL GOVERNMENT
OFFICE OF THE CHAIRMAN

Administrator's Office
P.M.B 2019
Kaduna State
☎ : 062-239751

Telegraphic Address: ADKAD

Our Ref: _____ Date: _____

Your Ref: _____

Primary Health Care
Department
Kaduna North Local
Government

6/10/2016

Dr Awawu Grace Nmadu
12 Emir Road, Kaduna

Dear Madam,

RE: PERMISSION TO CONDUCT RESEARCH

With reference to your letter dated 5/10/2016 on the above subject matter, I am directed to issue you permission to have access to the health facilities of this Local Government and conduct your research. I wish you the best.


Mary P. Bayero
For: Director PHC
Kaduna North LG