

Secrecy, shame and ambivalence in adolescent pregnancy prevention:

Experiences from Mbeya, Tanzania

Doreen Ibrahim Pamba



Centre for International Health (CIH)

Department of Global Public Health and Primary Care

Faculty of Medicine and Dentistry

University of Bergen (UiB), Norway

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Doreen Ibrahim Pamba

This thesis is submitted in partial fulfilment of the requirements for the degree of Master of Philosophy in International Health at the University of Bergen.

Centre for International Health (CIH)

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Main Supervisor

Karen Marie Moland (Professor)

Department of Global Public Health and Primary Care, Centre for International health,

University of Bergen (UiB)



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(Source: TDHS 2010)

“Good reproductive health policy starts with credible research” (Guttmacher Institute, 2017)

Abstract

Introduction

In Tanzania, deliveries among adolescent girls have increased from 23% in 2010 to 27% in 2016. The unmet need for family planning among sexually active unmarried adolescent girls is estimated to be over 40%. In 2008, about one-third of incomplete abortion cases in health facilities occurred among adolescents and there has been an increasing documentation of unsafe clandestine abortions in the country. Despite these challenges, performing or assisting abortion is still illegal in the country, with imprisonment term ranging from 3-14 years depending on the level of involvement in the abortion procedure. Nevertheless, post-abortion care (PAC) services are provided for women with incomplete abortion complications. This research aims to contribute to the prioritized family planning agenda by exploring and adding up context-specific knowledge on out-of-school adolescent girls' understandings, access to and experiences of modern contraception and pregnancy termination in Mbeya region, in the southern highlands of Tanzania.

Methodology

This is a qualitative study drawing upon phenomenological thinking in understanding out-of-school adolescent fertility control practices. Data were collected through 26 in-depth interviews and 2 focus group discussions with nurses and out-of-school adolescent girls. Data was analysed through thematic content analysis by using ATLAS ti. qualitative data analysis software.

Findings

The findings reflect ambivalence in adolescent use of modern contraception resulting from uncertainties regarding reproductive health safety. The use of modern contraceptives by adolescents is perceived by nurses and some girls as a sign of declining sexual morality thus, influencing adolescent women to resort to secretive sexual and fertility control practices in order to maintain social expectations of being moral girls. Further, nurses act as medical and moral agents during contraceptive counseling thereby informally re-enforcing social norms on abstinence and a focus on school while at the same time negotiating for appropriate contraception. Poor awareness of emergency contraceptive pills was observed among adolescent girls, including poor knowledge of fertile days within the menstrual cycle.

Conclusion

Although modern contraception implies sexual pleasure without fear of unplanned pregnancy, it is perceived by both nurses and girls as a reproductive health risk (infertility) and a sign for declining sexual morality. Therefore, interventions that aim to increase the use of contraceptives among adolescents need to consider how they collide with local norms and perspectives regarding sexual morality thus, directing efforts on how to change such conceptions to align with the aim of promoting adolescent reproductive health. Further, educational interventions on contraception have to increase awareness of emergency contraceptive pills among adolescent girls as well as address the need for nurses to provide emergency contraceptive information to all adolescents during family planning counseling.

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Acronyms and Abbreviations

AFRHS- Adolescent Friendly Reproductive Health Services

ASFR- Age Specific Fertility Rate

CAQDAS- Computer Assisted Qualitative Data Analysis Software

CIH- Centre for International Health

CIOMS- Council for International Organizations of Medical Sciences

COREQ - Consolidated Criteria for Reporting Qualitative Research

ECPs- Emergency Contraceptive Pills

FGDs- Focus Group Discussions

FP- Family Planning

FP 2020- Family Planning 2020

IDIs- In-depth Interviews

IUD- Intra-uterine Device

Mbeya CC-Mbeya City Council

Mbeya DC- Mbeya District Council

MOI- Medical Officer In-charge

MoHCDGEC- Ministry of Health, Community Development, Gender, Elderly and Children

MRRH- Mbeya Regional Referral Hospital

MZRH- Mbeya Zonal Referral Hospital

NBS-National Bureau of Statistics

NFPCIP- The National Family Planning Costed Implementation Program

NFPRA- National Family Planning Research Agenda

NGOs- Non-governmental organizations

NIMR-National Institute for Medical Research

PAC- Post-Abortion Care

RCH- Reproductive and Child Health

RMNCAH- Reproductive, Maternal, Newborn, Child and Adolescent Health

SDGs-Sustainable Development Goals

SRH- Sexual and Reproductive Health

STIs- Sexually Transmitted Infections

TDHS- Tanzania Demographic and Health Survey

TDHS-MIS- Tanzania Demographic and Health Survey and Malaria Indicator Survey

WEO-Ward Executive Office

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Background

Global concerns on adolescent reproductive health

Between 2003 and 2009, maternal hemorrhage and abortion were categorized among the top 10 causes of death globally (Patton et al., 2009) and accounted for 27.1% and 7.9% of deaths among women, respectively (Say et al., 2014). Evidence shows that childbearing in adolescence is associated with high maternal and child mortality due to their physical immaturity, with deaths from pregnancy and childbirth complications reported to be among the leading causes (Patton et al., 2009). It is for these reasons that adolescent reproductive health has gained prominence in the international agenda in recent years.

Adolescents comprised about 18% of the world population in 2010, with those residing in Sub-Saharan Africa accounting for 16% of this population (UNFPA, 2013). It has been predicted that Tanzania will be among the nine least developed countries with highest percentage of younger population by 2050 (United Nations, 2011). Worldwide, adolescent births contribute about 11% of all global births, of which 95% is contributed by developing countries (WHO, 2011). An estimated 19% of young women in developing countries become pregnant before reaching 18 years of age (UNFPA, 2013) while about 10.2 million unplanned pregnancies occur among adolescent girls aged 15–19 years each year with 3.9 million of these ending in unsafe abortion (Guttmacher Institute, 2016). These statistics have raised special concerns on reproductive health of adolescents residing in developing countries, especially the use of modern contraceptives. Unfortunately, about 23 million women aged 15–19 in developing countries have unmet need for modern contraception, with the majority living in poor families in rural areas (Guttmacher

Institute, 2016). This further adds to the pool of potential unintended teen pregnancies and associated mortalities in these countries.

Prevention of marriage before 18 years of age, increased use of contraceptives and prevention of unsafe abortion are recommended in the WHO guidelines on preventing early pregnancy and poor reproductive health outcomes among adolescents in developing countries (WHO, 2011). The Sustainable Development Goals (SDGs) agenda points to the importance of investing in sexual and reproductive health (SRH). SDG 3 aims to “ensure healthy lives and promote well-being for all at all ages” (United Nations 2015, pp.14). Target 3.7 sets to “...ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes” by 2030 (United Nations, 2015, pp. 16). Moreover, the Global Strategy for Women’s, Children’s and Adolescents’ Health 2016-2030 was launched in 2015 as a guide towards speeding-up health improvement in these sub-populations in accordance with the SDGs. This initiative has been described as the first global strategy to recognize adolescents’ health and that aims to end preventable adolescent deaths by 2030. A parallel global strategy is the FP 2020 that targets to ensure universal access to contraceptives by 2020 among more than 120 million women and girls irrespective of residential areas; hence, speeding-up reduction of unmet needs for FP and attainment of health related SDGs (FP2020, 2017).

The Family Planning Agenda in Tanzania

The total fertility rate in Tanzania has declined from 5.7 children per woman as reported in 2004 to 5.2 children per woman in 2016 (Ministry of Health et al., 2016a) Family planning in Tanzania is managed by the Ministry of Health, Community Development, Gender, Elderly and

Children (MoHCDGEC) under the section of Reproductive and Child Health (RCH). Since 1994, adolescents' reproductive health has been formally recognized and promoted under the Adolescent Reproductive Health Program within the ministry. The priority on improving women's reproductive health including adolescents has been reflected in numerous past and present strategic action plans and policy documents at national level that align with international priority targets on women, child and adolescent reproductive health. A few include; the National Family Planning Costed Implementation Program (NFPCIP) 2010-2015, The Tanzania Development Vision 2025, The Sharpened One Plan 2008-2015, The Health Sector Strategic Plan 2015-2020 (HSSP IV) and the One Plan II 2016-2020.

The National Family Planning Guidelines and Standards of 2013 emphasize the right of young people aged 10-24 years to have equitable access to quality family planning information, education and services without parental consent and irrespective of their parity and marital status (Ministry of Health and Social Welfare, 2013). Tanzania with support from donor-funded interventions has made efforts to scale up adolescent friendly reproductive health services (AFRHS) to cater for the unmet need of family planning among adolescents (Venkatraman et al., 2013). One-third of health facilities are reported to be youth-friendly, which involves provision of appropriate comfortable settings and services for youth, ability to retain youths for follow-up or repeated visits and positive attitudes to provide services in a friendly way (Hainsworth et al., 2014). However, negative attitudes among healthcare workers, religious leaders and community members have been reported as barriers to sexual and reproductive health seeking behavior among the adolescent population sub-group (Dusabe et al., 2015, Mchome et al., 2015). Despite these numerous challenges, the country is pressing forward in improving adolescent reproductive

health. The country's One Plan II 2016-2020 strategic plan for RMNCAH aligns with SDGs and the Global Strategy for Women's, Children's and Adolescents' Health 2016-2030, targeting an increase of 80% of RCH facilities providing youth friendly services and 45% increase in modern contraceptive prevalence rate by 2020 (Ministry of Health, 2016).

Childbearing and contraception among adolescent girls in Tanzania

The adolescent sub-population constitutes 10.3% of the total population of 44.9 million as of 2012 (National Bureau of Statistics et al., 2015). Childbearing among adolescents aged 15–19 has increased from 23% in 2010 (TDHS 2010) to 27% in 2016 (Ministry of Health et al., 2016b). However, there are differences in proportion of childbearing across the 15-19 age group; with 4.4% reported to have begun childbearing at 15 years to 56.7% at age 19 (Ministry of Health et al., 2016a). Furthermore, adolescent childbearing varies with educational level, economic status and area of residence. Those with no education account for 52% of girls having begun childbearing compared to 10% of those with secondary or higher education; those raised in wealthiest households constitute 13% contrary to 42% in poorest households and those resident in rural areas constitute 32% of teenage pregnancies contrary to 19% of their urban counterparts (Ministry of Health et al., 2016b).

In 2016, the unmet need for family planning among sexually active unmarried women aged 15–19 has been reported to be 42.4%, with mothers below 20 years comprising 31.9% of young women who had wanted their pregnancy later (Ministry of Health et al., 2016a). This describes the proportion of girls who failed to control their fertility resulting in unplanned pregnancies.

Reasons for non-use of contraception among adolescents were reported to be attributed to having a single status, infrequent sex, unfriendly health services, concerns about side effects and misconceptions of HIV infection and infertility (Dusabe et al., 2015).

In addition, the lack of awareness of emergency contraception among women was described as among key barriers perpetuating demand challenges (UnitedNations, 2012). Emergency contraception was categorized among reproductive health commodities that compose the list of 13 life-saving commodities that are lacking and whose availability and accessibility was targeted to be increased in poor nations by 2014 (UnitedNations, 2012). It has also been listed in the recent WHO Model List of Essential Medicines (WHO, 2015), indicating its priority for women's' health.

Abortion on the international and local agenda

Abortion contributed 7.9% of global maternal deaths between 2003 and 2009 (Say et al., 2014). During the same period, Sub-Saharan Africa was reported to have a proportion of 9.6% abortion related maternal deaths that was higher than the global average (Say et al., 2014). Recently, a paper estimated a global rate of 35 abortions per 1000 women aged 15-44 each year between 2010-14, with global abortion trends from 1990 through 2014 remaining high in developing countries compared to the developed world (Sedgh et al., 2016).

Unsafe abortion which refers to "...a procedure for terminating an unintended pregnancy carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards or both (WHO 2008, p. 2); has raised global concerns over women's health, with numerous efforts targeted at ensuring access to safe abortion and post-abortion care

(PAC) services worldwide. However, recent reinstatement of the Mexico City Policy by President Donald J Trump in January, 2017 that prohibits support for abortion is anticipated to affect greater number of United States (US) funded international and local non-governmental organizations (NGOs) working to actively promote and perform safe abortion related causes (Singh and Karim, 2017). This will further enforce ideologies on pro-life movement where elective abortions are opposed.

In Tanzania, an act towards induced abortion is illegal following a restrictive abortion law which allows it to be conducted only when a woman's physical or mental health is at risk (Center for Reproductive Rights, 2012). Under the revised penal code, different legal sanctions apply to those responsible for any act of abortion. A pregnant woman who intentionally performs abortion or allows it to be performed is subject to seven years imprisonment, and a person who intentionally assists in termination of pregnancy is subject to fourteen years of imprisonment. Any person who deliberately provides supplies necessary for abortion is subject to three years imprisonment term (Center for Reproductive Rights, 2012). This law is however regarded as being dormant as appropriate legal sanctions are rarely enforced and implemented.

A study on abortion in northern Tanzania reported the lack of formal legal sanctions against women who undergo induced abortion despite availability of strong public evidence (Plummer et al., 2008). Further, a study has documented the prevalence of unsafe abortion to be high in countries where abortion laws are restrictive and with limited access to contraception (Faúndes, 2010). However, recent global data on abortion trends between 2010-14 reported non-significant associations between legal status of abortion and abortion rates (Sedgh et al., 2016). Safe

abortion is primarily determined by access to such services including trained health workers. Nevertheless; the authors agree that countries with restrictive abortion laws have been observed to have higher levels of unmet contraception needs.

In 2013, Tanzania had an estimated national abortion rate of 36 abortions per 1000 women aged 15–49 (Keogh et al., 2015). One-third of all incomplete abortion cases identified in health facilities in the country involved adolescents (UNICEF, 2011). Despite its illegal nature, such data reflects pressing needs for fertility control among women. To ensure well-being for all women, the Tanzanian MoHCDGEC partnering with international organizations has been scaling up provision of PAC services for emergency treatment of abortion related complications and provision of post-abortion family planning counseling at different levels (Keogh et al., 2015, Nielsen et al., 2009). Research studies have also raised public health concerns by reporting country-specific prevalent cases of unsafe abortion practices among women (Norris et al., 2016, Rasch and Kipingili, 2009).

A number of traditional and modern practices aimed at inducing abortion such as local leaves, ashes (Plummer, 2010; Rasch and Kipingili, 2009) and chloroquine (Silberschmidt and Rasch, 2001) are alternative cheap means of controlling fertility that women of reproductive age have reported to resort to and some have been tested to show contractive effects on the uterus (Rasch et al, 2014). These are a few of the ways in which unsafe abortion is conducted. Furthermore, the use of misoprostol has been documented as safe and effective at inducing abortion and treating associated complications when taken early in pregnancy (Shwekerela et al., 2007). It is also cheaper compared to surgical procedures thus, appropriate for low-resource settings including

Tanzania and important in reducing maternal mortality from unsafe abortion (Baggaley et al., 2010, Klingberg-Allvin et al., 2015).

Rationale of the study

The global agenda on SDGs targets universal access to family planning by 2030 (United Nations, 2015). Closing the gap for unmet need in family planning among women aged 15–19 has been agreed upon as a requirement to address wider socio-cultural and health-service challenges, often specific to context (Guttmacher Institute, 2016). The 2016 TDHS-MIS reported an increase of 4% in adolescent childbearing compared to 2010, thus raising concerns on consistent and proper use of modern contraception in this age group. It is therefore important to understand context-specific perceptions and practices attributed to use of modern contraception and pregnancy termination in order to close the gap for adolescent unmet family planning needs in Tanzania.

This research responds to the National Family Planning Research Agenda (NFPRA) 2013-2018 that among other things calls for research on key myths and misconceptions among population sub-groups and myths that may delay the use of contraception or family planning (NFPRA, 2013). The research gap priority is also globally reflected in a paper of family planning knowledge gaps by the Population Council (Askew and Brady, 2013) and in Family Planning 2020 (FP2020) research agenda policy brief (Population Council, 2013) that both call for further credible research in understanding reasons that perpetuate non-use of family planning among disadvantaged girls.

Furthermore, the country's One Plan II 2016-2020 strategic plan targets a 10% prevalence of unmet need for FP among adolescents by 2020 from the current 40% (Ministry of Health, 2016).

It is thus important that country-specific efforts targeted at increasing modern contraceptive use among teenagers, are informed by ongoing perceptions of contraception. Teenage pregnancies and unsafe clandestine abortions are increasing and need to be addressed to minimize maternal mortality, socio-psychological sufferings contributed by abortion complications as well as to control population growth in the country. It is anticipated that findings will help inform interventions targeted at enhancing the use of modern contraception, reduce pregnancies and unsafe abortion practices among adolescent girls in Tanzania.

Study Aim:

The aim of this study is to contribute to the prioritized FP agenda by exploring and adding up context-specific knowledge on out-of-school adolescent girls' understandings, access to and experiences of modern contraception and pregnancy termination in Mbeya region, Southern highlands of Tanzania.

Specific objectives:

1. To explore perceptions and experiences of using modern contraceptives as narrated by girls and nurses;
2. To explore ideas and practices related to pregnancy termination among out-of-school adolescent girls and nurses
3. To explore the role of nurses in contraceptive counseling to young girls.

Methodology

This section describes how the research was conducted, from the choice of study design, data collection during fieldwork and how the data was analyzed.

Study design

This qualitative research study, conducted in Mbeya region, borrows thinking from a phenomenological approach to examine how out-of-school adolescent girls and nurses (during counseling) perceive and experience fertility control. Phenomenology focuses the in-depth exploration of people's lived experiences of an event or situation (Dew, 2007). It originated from philosophical works of Edmund Husserl and Martin Heidegger during the 20th century, who emphasized social research to focus on description and interpretation of experiences and meanings of social phenomenon of interest (Converse, 2012). In this stance, the researcher's role is to uncover through informants' accounts, individual experiences of a phenomenon, and meanings attached to such experiences while accounting for influences from wider social, cultural and political context (Lopez and Willis, 2004). The decision to use a phenomenological approach was guided by the research objective to explore perceptions and experiences of modern contraception and pregnancy termination among nurses and adolescent girls not in school. Furthermore, the flexibility and iterative nature of qualitative research (Bryman, 2008), was an effective means in allowing detailed understanding of the research topic.

Theoretical Concepts

I drew upon social constructionism as a theoretical framework to aid basic understanding of how phenomena are given meanings through social interactions (Conrad and Barker, 2010). Social constructionism views reality as subjective and a social construct arising from ongoing social

interactions in a particular context (Bury, 1986). A major aim of this approach when applied to public health is to explore the social construction of health phenomena focusing on how meanings on diseases, illnesses, practices and conditions are created by people or patients as they interact within their social context. The social construction of phenomena is a continuous process as society evolves and meanings are perpetuated and changed as they are re-affirmed among users.

In this research, the underlying thinking from this macro sociological theory is important in understanding adolescents' reproductive health by uncovering meanings girls and nurses attach to modern fertility control interventions (i.e. modern contraceptive use) and how these meanings guide their practices in preventing and terminating unplanned pregnancies. However, I have not dwelled much in using this theory comprehensively, rather I also borrowed related theoretical concepts of social norms and authoritative knowledge that I will describe briefly, to guide the interpretation of the study findings.

Social Norms

Social norms are a system of implicit rules which operate at society level to define and govern people's ways of life (Xenitidou and Edmonds, 2014). They exist to regulate social behavior through prescribing what is socially approved while sanctioning deviance through informal means. In this work, I apply the concept to refer to socially constructed notions of right and wrong relating to adolescent sexuality particularly on having intimate relationships, use of modern contraception and pregnancy termination practices.

As argued by Delamater (1981), family and religion are social institutions that define and regulate norms on sexual expression for its members through socialization. Further, such

regulation of acts is performed through internalizing specific perspectives which are in turn perpetuated and changed during interactions and enforced for conformity through sanctioning systems that come into play from deviation of norms (Charon, cited in Delamater 1981). Based on this thinking, the concept will amplify how ongoing normative models exerted by religion, family, and the hospital (as they come to play during interactions with religious groups, nurses, peer groups and significant others) influence and shape meanings attributed to adolescent fertility control practices and shape experiences.

Authoritative knowledge

Authoritative knowledge is defined as "...knowledge that within a community is considered legitimate, consequential, official, worthy of discussion, and appropriate for justifying particular actions by people engaged in accomplishing the tasks at hand." (Davis-Floyd and Sargent 1997, p.58). It entails knowledge regardless of truth value, which is shared among people who are not necessarily in authority yet comes to be consensually approved as proper for justifying actions and practices within a domain of interactions. It is a concept related to and embedded in power and knowledge as stated by Lave and Wenger (1991, cited in Davis-Floyd and Sargent 1997, p. 56) that "The construction of authoritative knowledge is an ongoing social process that both builds and reflects power relationships within a community of practice".

In this work, the authoritative knowledge is based on nurses' medical knowledge and institutional belonging in the hospital but loses authority once outside this setting. I have applied it to interpret the double role of nurses as medical and moral agents with authority over young people's reproductive health as they come into play during an encounter with adolescent clients

for contraceptive counseling and provision of PAC services. The concept is appropriate for use in attaining the study's objective of understanding the role of nurses in contraceptive counseling to young girls. It is important to note that, in a hospital setting there are multiple forms of knowledge as held by patients or clients and healthcare staff but it is authoritative knowledge that counts and assumes power in directing and justifying practices.

Study location and setting

The study was conducted in two districts in Mbeya region namely: Mbeya district council (Mbeya DC) and Mbeya city council (Mbeya CC). Mbeya region is one among the 25 regions of Tanzania mainland and covers geographical size of 62,420 sq km, bordering Zambia and Malawi to the West (President's Office Regional Administration and Local Government, 2016). This region is located in the South-West of Tanzania, also known as the Southern Highlands zone with a total fertility rate of 4.5 (Ministry of Health et al., 2016a) and population density of 2,707,410; comprising 6.2% of Tanzania's mainland population in 2012 (National Bureau of Statistics and Office of Chief Government Statistician, 2014).

It is a multiethnic community with nine indigenous ethnic groups of Nyakyusa, Safwa, Malila, Nyiha, Nyamwanga, Ndali, Bungu, Kimbu and Sangu; whose main economic activity is small scale agriculture and minor activities in mining, trade and tourism (President's Office Regional Administration and Local Government, 2016).

The selected two districts of Mbeya DC and Mbeya CC are among the 10 districts that comprise Mbeya region with a total population of 305,319 and 385,279 respectively (National Bureau of Statistics and Office of Chief Government Statistician, 2016), with each district divided into smaller geographical areas known as wards. The specific study location for Mbeya DC was

Nsalala ward while informants from Mbeya CC were recruited from Nzovwe ward. The choice of these wards was based on opinions from Ward Executive Officers (WEO) on districts recognized to have many out-of-school adolescent girls. The WEOs are public servants in administrative posts tasked with management responsibilities for designated wards.

Mbeya is predominantly a youthful population with those aged 0-24 constituting 62.9% and adolescents aged 15-19 accounting for 10.7% of the total population in 2012 (National Bureau of Statistics and Office of Chief Government Statistician, 2016). The region comprised 33% of teenagers who had begun childbearing in 2015-16 and has recently been categorized into the Southern West Highlands Zone which was ranked among the top 2 out of 9 zones with highest teen pregnancies in Tanzania (Ministry of Health et al., 2016a). In 2012, among the proportion of adolescents who at least had one birth, 16.2% and 26.2% lived in urban and rural areas of Mbeya respectively (National Bureau of Statistics and Office of Chief Government Statistician, 2015).

In addition, school attendance status was reported to decline with increasing adolescent age where 63.8% of those aged 15 attended school contrary to 36.2% among 19 year olds in 2012 (National Bureau of Statistics and Office of Chief Government Statistician, 2016). Given these regional data on association between teenage fertility with residence and schooling status, recruitment of out-of-school adolescents in rural and urban districts in the region was suitable in generating context-specific understandings of fertility control from adolescents' perspectives.

Hospital and community setting

The research took place in two kinds of settings. The first is a hospital based setting in Mbeya CC known as Mbeya Regional Referral Hospital (MRRH). This is among the public hospitals that provide FP and PAC services in the city and serves the whole population of Mbeya region. The second are urban (Mbeya CC) and rural (Mbeya DC) community settings.

The choice of MRRH was based on large number of referred adolescent clients attending PAC as I learned from informal consultations with clinicians working in Mbeya Zonal Referral Hospital (MZRH). I anticipated nurse informants from MRRH to be an appropriate sample for gathering relevant information on their role in young people's contraceptive counseling, as they are experienced in adolescent reproductive health service provision.

The choice of the urban and rural community settings was motivated by the reported prevalence of teen pregnancies between urban and rural areas. In 2012, the proportion of adolescents 15-19 years at national level who were reported to have begun childbearing were 14.8% in urban and 28.1% in rural areas (National Bureau of Statistics and Office of Chief Government Statistician, 2016). In 2015-16, an increase in proportion of childbearing to 19% and 32% in urban and rural areas respectively was observed (Ministry of Health et al., 2016b).

MRRH was described by the nurses to provide three main groups of family planning methods. The first group are permanent methods that include sterilization for both men (vasectomy) and women (Bilateral Tubal Ligation), the second group are long term methods that compose Intra-uterine devices (IUDs) and implants, and the last group being short term methods namely; female and male condoms, injections, contraceptive pills and emergency contraception which was only mentioned after I specifically probed for its availability. However, there were accounts

of less common cases of contraceptive stockouts particularly the long term methods. As a way to resolve the issue, clients would be provided with condoms or contraceptive pills as a substitute to be used for a while when waiting for a restock of their preferred long term method. In addition, the resort to short term methods was also appropriate in cases where the person authorized to perform a long term method for family planning for instance IUDs , was absent.

The nurses reported to having experience in attending young clients ranging from 13 to 20 years for FP and PAC services. However, the majority of the clients were between 15 to 17 years, with less common cases of pregnant girls aged 12. The majority of adolescent FP clients in this hospital were girls in intimate relationships; pregnant and non-pregnant and of mixed schooling status. Some were students at secondary level varying from form II to form IV, others were drop outs in between the four secondary years of schooling and few who attended PAC were described as having completed primary school in rural areas and moved to urban areas to work as barmaids. Furthermore, there were also few cases of adolescent girls who have never gone to school.

In the urban (Mbeya CC) and rural (Mbeya DC) community settings, both IDIs and focus group discussions (FGDs) were conducted with out-of-school adolescent girls. IDIs and FGDs were held in respective local leaders' offices, also known as ward executive offices that belonged to WEO and were freely given for research purposes.

Recruitment

Qualitative sampling relies on recruitment of informants who are able to provide comprehensive understanding of the phenomenon studied (Bryman, 2008). I employed purposive sampling method to recruit a maximum variation sample of a total of 16 out-of-school adolescent girls

aged 15–19, half from rural and half from urban communities and 10 nurses from MRRH providing FP and PAC services.

Recruitment was simultaneous with data collection in the sense that, I conducted IDIs as I progressed to recruit and schedule informants for interviews. Adolescent girls were recruited first, followed by nurses. Given the need to explore and understand perceptions and first hand experiences of fertility control from a variety of settings and informants, a purposive selection of study participants deemed necessary.

Saturation has been widely documented as a deterministic principle for purposive sample sizes whereby recruitment of study participants is influenced by the extent to which new information is generated with inclusion of additional informants (Guest, 2006, Marshall et al., 2013). However, consensus among the ideal sample sizes is lacking among qualitative methodologists, with different numbers suggested based on study design, quality and number of interviews and authors' judgments (Marshall et al., 2013). Sample sizes that are recommended for phenomenological studies range between 6 (Morse, cited in Guest et al, 2006) to 25 informants (Creswell, cited in Guest et al, 2006). Furthermore, Guest et al. (2006) recommended an average of 12 interviews but this is dependent on the research topic, with experiences of social phenomenon that are widely distributed requiring smaller sample sizes for an in-depth understanding.

Given the documented experiences of adolescent contraceptive use and abortion in Tanzania (Plummer et al, 2008; Laddunuri, 2013; Norris et al, 2016), my research topic appeared to be generally widely covered among adolescent girls suggesting it will require a relatively small sample size (Guest et al, 2006). After conducting 12 IDIs, I was not getting divergent

information on adolescent fertility control perceptions and experiences suggesting I have reached data saturation. Therefore I conducted 4 more IDIs to reach a sample of 16.

In addition, I conducted repeat or follow-up IDIs with all the 16 adolescent girls (11 through face-to-face and 5 through phone calls) as described in proceeding data collection section. In my interviews with nurses, saturation was achieved with the 7th informant where information provided on their role during counseling and about use of contraception and unsafe abortion practices among adolescent clients attending the hospital for FP and PAC services were increasingly similar with IDI 8 through IDI 10. I anticipated having redundant codes if I were to recruit further.

Recruitment of adolescent girls

I recruited adolescent girls aged 15–19 years who were out of school because they are more likely to engage in early sexual initiation, unprotected and risky sexual behaviors' and increasingly more likely to marry and to become pregnant than those who stay in school (Ministry of Health et al., 2016b). Furthermore, the recent Demographic and Health Survey in Tanzania showed that girls with less years of schooling, residing in rural areas and living in poor homes were at more risk of adolescent childbearing among other teenagers. Therefore, it was important to recruit rural and urban participants in order to perform a sub-group analysis. Subgroup analysis of qualitative data was reported by Hammersley and Atkinson (1995, cited in Ritchie and Lewis, 2003) as useful in describing understandings and experiences of different groups of informants. The following were recruitment criteria for these informants;

- i. adolescent girls aged 15-19 from the general community
- ii. has discontinued formal education from primary or secondary level
- iii. resident of Mbeya CC and Mbeya DC, Tanzania

Adolescent girls who were married, have children or were unwilling to discuss issues related to contraception and unsafe abortion practices were excluded from participation. The decision to exclude these girls was based on the need to focus on exploring fertility control experiences among unmarried girls without children. Moreover, unwillingness to discuss research topics meant inability to attain research objectives.

Upon receipt of research approvals from the national ethical board and local authorities, I introduced my research assistant to the local leaders in areas targeted for recruitment i.e. Nsalala and Nzovwe wards. The leaders held the position of Ward Executive Officers (WEO) and were helpful as contact persons in identifying households in their neighborhoods that had adolescent girls who discontinued formal education from primary or secondary level of schooling.

The three of us (WEO, my research assistant and I) visited houses during the evenings that were known by the WEOs to have girls who fitted the eligibility criteria. Appointments for IDIs and FGDs were scheduled after introductory remarks and debriefing of the research study to potential informants, including parents or guardians if they were present on the day of recruitment. All WEOs who acted as contact persons were compensated for their time and inconvenience as per approved rate i.e. 5000Tsh, equivalent to 20 NOK.

The girls I recruited were all Christians with different denominations (Roman Catholic, Protestant and Lutheran) aged 16 to 19, with the majority having stopped schooling in 2015 at different levels within the four years of secondary school. Reasons for failing to continue with studies were reported to be financial constraints where parents chose to stop paying school fees and preferred educating younger siblings through primary school, death of a father who was a family's bread winner and failing to obtain sufficient grades necessary to continue to high school.

Following their out-of-school status, some (9 out of 16) of the girls were engaged in low income generating activities such as selling fruits, vegetables, mobile vouchers and working in women saloons in order to contribute to earning income for the family. A proportion of more than half of the girls (11 out of 16) had one boyfriend who was kept a secret from parents or guardians and older siblings. Demographic characteristics of the selected participants are described on Table 1.

Table 1: Demographic characteristics of adolescent girls in in-depth interviews

Demographic characteristics	Informants (n=16)
Age (years)	16 years (4 girls) 17 years (7 girls) 18 years (2 girls) 19 years (3 girls)
Level of education	Primary school (2 girls) Secondary school (14 girls)
Last year of schooling	2012 (4 girls) 2015 (12 girls)
Religion	Roman Catholic (5 girls) Protestant (11 girls)
Residence	Nsalala (8 girls) Nzovwe (8 girls)
Income generating activity	None (7 girls) Small businesses (9 girls)
Sexual relationship	None (5 girls) One sexual partner (11 girls)

Recruitment of nurses

The decision to recruit nurses was a resort to generate data on their role in young people's fertility control practices. I recruited nurses working in family planning clinic and maternity ward at MRRH after obtaining permission to conduct IDIs from the Medical Officer in charge (MOI). Upon receiving approval to collect data from the hospital, I was assigned to a matron who was the person supervising the maternity wing. She assumed the role of a contact person helping in identifying nurses fitting the study's eligibility criteria.

The nurses had to be experienced in adolescent FP and PAC service provision and willing to provide informed consent for participation. The matron introduced me to nurses as a master student conducting research and an employee at the National Institute for Medical Research (NIMR-MMRC), requesting their collaboration as we passed by through different offices at the family planning clinic and maternity ward.

I scheduled interviews based on a time that nurses felt they would be free to engage in lengthy discussions. Therefore, I conducted some interviews in early mornings prior to starting work and few others during the afternoons. Nurses were specifically clear that they were able to engage in a 40 minutes interview at maximum.

All nurses were Christians, six working at the FP clinic and four at the maternity ward. The educational level varied between having a certificate (i.e. enrolled nurse) to a diploma in nursing (i.e. registered nurse). Moreover, nurses working in the FP clinic were a bit more experienced with an average of 4.3 years of working experience and an average age of 34.3 years compared to averages of 3.3 working years and 32 years old for those working in maternity ward. These are people who are officially responsible for counseling young and adult women for family planning and contraceptive use.

The nurses at the FP clinic and those at the maternity ward work in close collaboration as PAC patients attending FP clinics are referred to the maternity ward for management of abortion related complications and patients at maternity ward often referred to FP clinic for detailed contraceptive counseling when nurses do not have sufficient time for comprehensive counseling due to a long queue of delivering women in the labor room. Demographic characteristics of the nurses are summarized in Table 2.

Table 2: Demographic characteristics of nurses

Demographic characteristics	Informants (n=10)
Age (years)	FP clinic (38, 33, 28, 46, 33, 28), average 34.3 Maternity ward (38, 29, 28, 33), average 32
Education	FP clinic (Enrolled Nurse (5), Registered Nurse (1)) Maternity ward (Enrolled Nurse (3), Registered Nurse (1))
Work experience at MRRH (years)	FP clinic (8, 3, 1, 10, 2, 2), average 4.3 Maternity ward (5,2,3,3), average 3.3
Religion	Roman Catholic (4) Protestant (6)
Department of work at MMRH	FP clinic (6) Maternity ward (4)

Key: FP-Family Planning

Data collection

I collected data from August to October 2016 using a semi-structured in-depth interview (IDIs) and focus group discussions (FGDs) guides. I started to interview eight girls at Nsalala (rural), followed by eight others living at Nzovwe (urban). I proceeded to conducting FGDs, one in each of the two mentioned areas and finalized my fieldwork by interviewing ten nurses working at Mbeya Regional Referral Hospital (MRRH).

Discussions were held in places where informants felt comfortable to speak and the language of communication was Kiswahili, the national language of Tanzania. The choice to use Kiswahili as a medium for discussions was based on the need to ease communication and enhance transparency with both groups of interviewees. All participants who were invited willingly agreed to participate in the study.

Research assistant training

A Tanzanian female research assistant with experience in qualitative research was recruited to assume the role of a note taker for FGDs and help in verbatim transcription of audio-recordings in Kiswahili. The research assistant was trained about the research study prior to entering the field, specifically on instructions on how to transcribe verbatim, note taking during FGDs and maintaining confidentiality of informants' accounts.

In-depth interviews

I conducted a total of 26 semi-structured in-depth interviews (IDIs). The IDIs with girls were composed of eight from Nsalala ward (rural) and eight from girls who were resident in Nzovwe ward (urban) and the remaining ten were held with nurses from MRRH located at Mbeya CC. I anticipated that, given the sensitive nature of induced abortion, a semi-structured interview guide

provides greater opportunities for uncovering diverse meanings and experiences of such practices which are illegal in the country.

The flexibility of the IDI guide allowed further probing of information that would otherwise be difficult to obtain from a structured interview guide. I was able to elicit discussion topics based on the direction of informants' feedback and emotional signals emanating from their narrations. In addition, being a novice qualitative researcher; I have limited experience with unstructured IDIs hence; the use of semi-structured guide provided a greater degree of control over the flow of discussions.

It has been argued that only one researcher is advised to conduct all interviews so as to promote thorough understanding of a phenomenon (Kleiman, 2004). Influenced by this thinking, I conducted all in-depth interviews and recorded them by an audio digital recorder.

The in-depth interview guide for adolescent girls (see appendix E) started with a section on general knowledge of menstruation since I was interested in exploring how adolescents relate knowledge about fertile days of their menstrual cycle to the importance of avoiding sex or using contraception during this time. It was further divided into content areas related to demographic information, perceptions and experiences of modern contraception with a section focusing on ECPs and perceptions and experiences of safe and unsafe induced abortion. The guide also contained probing question that I anticipated to use during the discussions. A few probes were added and some questions reworded as I progressed with the interview based on hunches arising from interviewees' narrations.

The average length of initial interview discussions with adolescent girls was 45 minutes. It was my observation that many of the girls were uncomfortable discussing personal experiences of

induced abortion and experiences of intimate sexual relationships thus, leading to brief discussions. This was particularly recurrent among girls residing in the rural area. However, I chose to conduct additional follow-up IDIs with all girls (as described in the proceeding section on repeated in-depth interviews) as a technique for prolonged engagement (Onwuegbuzie and Leech, 2007) in order to explore discussion topics further. Though I provided the opportunity for girls to select the location where we would conduct our interviews, all girls preferred that I make this choice thus; the first IDIs were conducted at WEOs office which were freely given and guaranteed with privacy.

The IDI guide for nurses was refined (see appendix G) to reflect additional information on the process of contraceptive counseling and challenges experienced with adolescent family planning. Furthermore, both IDI guides were adjusted as the interviews progressed, based on insights generated from previous in-depth interview discussions. Interviews with nurses lasted for an average of 40 minutes and were conducted in respective offices located at FP clinic and maternity ward. I was unable to extend the length of our discussions due to tight working schedules at maternity ward and long queues of clients at FP clinic that nurses were tasked with. Nevertheless, the nurses selected were experienced in adolescent FP counseling.

Repeated in-depth interviews

I conducted follow-up interviews with all 16 adolescent girls (see appendix F) to further explore topics that weren't covered in depth during initial IDIs as a consequence of experiencing muteness from the girls. These were often short with an average of 30 minutes and involved further exploration of girls' intimate sexual relationships, aspirations and personal experiences of pregnancy termination.

The majority of the girls consented for a repeated IDI through face to face conversations however; five chose telephone interviews due to having tight schedules. These interviews were held either at a quiet place at a public football pitch or an open space near the informants' homes, depending on participants' time and place of convenience. It was surprising that the few conducted through telephones were more open in terms of discussing their sexual relationships and aspirations compared to the ones that I held face to face.

Focus Group Discussions

I conducted two FGDs, one with girls who are residents in a rural area (i.e. Nsalala ward) and the other with girls in an urban area (i.e. Nzovwe ward). The FGDs were composed of out-of-school adolescent girls, with the one conducted in the rural area having eight participants and the urban counterpart comprised of ten participants. Recruitment of participants for the FGDs was assisted by contact persons (i.e. WEOs) by locating streets with households comprising adolescents who were not in school for varied reasons. I anticipated that recruiting girls living in the same street would hinder open discussions as they might fear breach of confidentiality therefore, I recruited adolescent girls who were residents of different streets in the neighborhood. During recruitment, I collected mobile phone numbers after briefing the research study which I used to send reminder messages for the scheduled discussions. All participants consented to participation and preserving confidentiality prior to initiating the discussions. Discussions were held at WEOs offices, in designated meeting rooms.

The topic guide for the discussions (see appendix H) comprised four main inquiry areas which were identical to the initial IDI guide. These included demographic information, perceptions and experiences of modern contraception with a section focusing on ECPs and perceptions and experiences of induced abortion. The discussions lasted for an average of one and a half hours. I

moderated all group discussions with the help of an assistant researcher who assumed the role of a note taker. All discussions were consented to be recorded.

I observed that the FGD in the rural area i.e. Nsalala ward was less active in issues pertaining to clandestine abortion practices thus, had to constantly request participants to share their thoughts about the discussion topic. On the contrary, the urban FGD counterpart was more interactive; dominated with debates around safety and suitability of safe and unsafe abortion techniques during adolescence. Given the need to explore how adolescent girls interact in relation to discussing use of contraception and known pregnancy termination practices, the FGDs were more appropriate for generating such data. Demographic characteristics of girls in FGDs are summarized in Table 3.

Table 3: Demographic characteristics of focus group discussion participants

Demographic characteristics	Informants (n=18)
Age (years)	16 (3), 17 (2), 18 (5), 19 (8)
Education	Primary (5), Form 2 (4), form 3 (1), Form 4 (8)
Last year of schooling	2012 (2), 2013 (5), 2014 (1), 2015 (10)
Religion	Roman Catholic (7), Protestant (9), Muslim (2)
Residence	Nsalala (8), Nzovwe (10)
Income generating activity	None (14) Small business (4)
Relationship status	None (9) Single partner (8) Two partners (1)

Data storage

Duplicate copies of audio-recordings and soft copies of transcripts were stored in my dropbox as well as Google drive for backup purposes without identity revealing information of the participants. In addition, hard copies of informed consent forms and transcripts were kept in private files in my office during fieldwork and in personal shelves after completion of data collection. Access to study data was limited to my research assistant and main supervisor. Both hard and soft copies of the dataset will be discarded one year after submitting thesis report.

Data analysis

Preliminary analysis of data began during and soon after completion of fieldwork. Analysis and collection of data were simultaneous in the sense that, hunches and thoughts from fieldnotes, which I took shortly after the interviews; were fed back to IDI guides as I progressed with recruitment and interviewing. The fieldnotes deepened my understanding of the context and interviewee accounts of experiences and perspectives of fertility control practices. Furthermore, the write-up of this thesis was in parallel to data analysis as thoughts resulting from memos I wrote during analysis, fed back to the draft versions of this report.

I used ATLAS. ti (version 7.5.12) as a computer assisted qualitative data analysis software (CAQDAS) to support in conducting thematic content analysis of the dataset. The selection of this analysis software was due to the simplified ways of coding, rapid retrieval and extraction of quotations and general organization of data; including my experience with using the tool. The proceeding sub-section explains in detail how analysis was undertaken.

Transcription and Translation

Audio-recordings of in-depth interviews and focus group discussions were transcribed verbatim in Kiswahili shortly after the interviews with help from the research assistant. This was done in order to grasp the discussion early on and inform discussion topics of proceeding interviews. To confirm whether transcriptions were carried out verbatim, I re-read all transcripts in Kiswahili while listening to the audio recordings. Minor corrections were made in instances where variations existed between what was written and narrated by informants.

Given the reason that I am supposed to know my dataset in depth, I chose to translate all transcripts to English; to get a deeper sense of informants' accounts while taking additional analytical notes as memos. I sent few completed transcripts to my supervisor for review and guidance on modifications of discussion topics. Upon receipt of comments, further changes were made to the in-depth interview guide as I continued with data collection. Completed transcripts were imported into ATLAS.ti for further analysis.

Thematic content analysis

I used thematic content analysis to analyze the data. This is “a method for identifying, analysing and reporting patterns (themes) within the data (Braun and Clarke, 2006 p.79). I started with thorough reading of translated English transcripts while taking memos, to obtain greater understanding of informants' narrations, then proceeded to assigning codes to meaning units across the dataset and generated themes that reflected overarching meanings in the data as reflected by research objectives. I also extracted quotes that illustrated and amplified what was described within each theme.

Development of codes

Codes refer to descriptive labels attached to a text segment (Kvale and Brinkmann, 2009). The process of assigning them to transcripts has been described as an essential step during analysis of qualitative data irrespective of type of design or analysis approach employed (Ritchie and Lewis, 2003). I engaged in thorough re-reading of each transcript to identify and allocate codes based on concepts that emerged from the narration i.e. unique ideas that arose from the data (e.g. “abortion as criminal”, “concept of blessed adulthood”) and those that reflected pre-conceived content areas related to the research objectives (e.g. “demographics”, “access to contraception”, “contraceptive preferences”).

The codes were largely descriptive and kept as close as possible to what was implied by informants’ accounts, however naming of few codes were refined as the coding process progressed to reflect an appropriate interpretation of the narration. I assigned codes and noted memos in parallel throughout the coding process. The code memos were notes about my thoughts concerning the codes which facilitated rationalizing about possible categories and themes. This process was a back and forth movement from prior to refined codes and memo creation.

As defined by Graneheim and Lundman, a meaning unit refers to “words, sentences or paragraphs containing aspects related to each other through their content and context” (2004, p. 106). I often preferred to code meaning units rather than line by line coding so as to maintain contextual information useful in interpretation of findings and avoid the temptation to fragment data, a critique attributed to open coding by proponents of qualitative research (Dahlgren et al., 2007). However, there were few scenarios where line by line coding deemed necessary to demonstrate a unique concept implied by the informant. When no more descriptive labels could

be applied to transcripts with further coding, I collated all 72 codes and developed a code list (see appendix I).

Development of categories

Categories were created from the code list by grouping codes that explained similar concepts into code families within the Code Family Manager drop down menu in ATLAS. ti. This was done after reflecting on what and how codes linked together in relation to study objectives and entailed the move into more abstract concepts. Development of categories was simultaneous with assignment of codes thus, it occurred during and after completion of the coding process.

Formulation of themes

A theme is an underlying overarching and abstract meaning that is implicit from a researcher's interpretation of informants' accounts (Graneheim and Lundman, 2004, Vaismoradi et al., 2016). I identified themes after thorough re-reading of a list of categories and sub-categories to search for underlying meanings related to use of contraception and abortion at an abstract level.

I employed analysis concepts of word repetitions and key indigenous terms (Ryan and Bernard, 2003) to identify themes by searching for concepts that were either repetitious among informants' talks (taking into account different content areas and sub-group analysis), based a priori on the research objectives or concepts that were said infrequently yet particularly striking. Repetitious words were identified by reviewing code frequencies in the Code Manager while key indigenous terms reflected unique terms used by informants e.g. "blessed adulthood".

In general, I borrowed the logic of constant comparative approach as described by Glaser and Strauss (Dahlgren et al., 2007) where I sought for similarities and differences in implied

meanings within and between categories. I made several attempts for the themes to be peer reviewed by colleagues during group discussions and my supervisor. This process was rather an iterative movement where I continuously reshuffled, rephrased and condensed themes into smaller numbers as I progressed with writing. I finally arrived at having saturated themes that are mutually exclusive yet interlinking and were ordered to compose a logical flow of a narration.

What follows is a list of themes, each with two to four categories;

1. Ambivalence to adolescent modern contraceptive use
 - Conflicting perspectives
 - Fear, knowledge and misconceptions on contraceptive use
2. Adolescent contraception as moral decay
 - Immoral sexual practices
 - Transitioning to a blessed adulthood
 - Shaping adolescent abstinence
 - Religious dilemmas: do they remember God?
3. Protection of social identity as moral girls
 - Maintaining dignity through secrecy
 - Resorting to clandestine abortions
4. Controlling contraception in the counseling room
 - Negotiating contraceptive choice
 - Withholding information and services
 - Interrogation practices

Ethical considerations

This section describes how the research conformed to ethical issues.

Research Approvals

The research proposal was sent for review (no.2016/710) to the Regional Committee for Medical Research Ethics (REK) in Norway but it was considered not relevant for an ethical approval since it did not involve patients. An approval was obtained from the National Health Research Ethics Sub-committee (NatHREC) in Dar-es-Salaam (see appendix A). In addition, permissions to conduct research in local communities were received from the local administrative authorities in Mbeya CC and Mbeya DC respectively.

Informed Consent

All informants provided written informed consent in Kiswahili prior to initiation of IDIs and FGDs (see appendices B, C and D). The informed consent forms for in-depth interviews incorporated a section for consenting for repeated interviews when need arises (see consenting signature section on appendices B and C). The Council for International Organizations of Medical Sciences (CIOMS, 2002) guideline 14 states that studies on beliefs and behavior on sexuality can be granted permission to waive parental permission if information collected may pose adolescents at some risk of questioning or intimidation from parents.

My supervisor and I anticipated that seeking parental assent may pose risk for forced disclosure of sexual information that would otherwise have been kept as secret from parents. However, this was contested by NatHREC which recommended debriefing parents or guardians prior to securing informed consent from each adolescent. I experienced uneasiness in discussing with

parents about the minute details of the research thus; I chose to refrain from providing details on specific questions written in the in-depth interview guide.

Confidentiality

In order to preserve confidentiality of information generated, identification codes were assigned to informant transcripts. The risk for disclosure of information among FGD participants was addressed by stressing on the importance of protecting anonymity and privacy of responses at the beginning and end of the discussions. Despite ensuring confidentiality, adolescent girls were feeling uncomfortable in disclosing induced abortion practices as it is not only a sensitive but controversial issue. It is my impression that they chose to describe third person accounts of such experiences as a technique to protect their identity, owing to the fact that confidentiality was often questioned as the interviews progressed. Moreover, I only present age, residence and department of work for quotations presented in the findings section of this thesis report so as to mask informants' identities.

Compensation

Informants were given 8000 Tsh each, equivalent to 32 NOK as a compensation for time, inconvenience and travel expenses incurred by participating in the study. CIOMS guideline 7 permits small sums of monetary payments to subjects with no direct benefit in the research for inconvenience travel and time spent and these should be evaluated in light of local culture and population. I recognized that being out of school may necessitate some adolescent girls to engage in income generation activities hence, participation in the study may be an inconvenience. In addition, it is common practice in the community to receive monetary payments for lost time or extra efforts incurred by informants during provision of research data.

Dissemination of findings

The study findings presented in this report have been submitted as a master thesis to the Centre for International Health (CIH) at the University of Bergen (UiB). In addition, oral presentations were held among the Global Health Anthropology Research group and master students research seminar at CIH.

The current guidelines on family planning (United Republic of Tanzania, 2013) stipulate the importance of disseminating research findings at local, national and international levels.

Therefore, I plan to disseminate research findings to the 2018 Annual Joint Scientific Conference for National Institute for Medical Research (NIMR-AJSC) in Tanzania. Further, copies of the thesis will be submitted to the country's National Institute for Medical Research (NIMR). The research findings will also be published in a peer-reviewed journal.

Reflexivity

Qualitative research requires the researcher to reflect on the influence of his or her prior assumptions on the interpretation and understanding of the studied phenomenon (Pillow, 2003)

This section describes how my role as a young mother, work position and educational background, prior interests and understandings of the research topic have influenced various phases of the research process.

Research topic and study design

As a member of the Global Health Anthropology Research Group at the Center for International Health (CIH), my role in this institution generally framed the decision to undertake a qualitative study. This is a group comprising masters, PhD and Post-doctoral fellows guided by Professors

with enormous experience in qualitative studies, particularly medical anthropology. The group's intellectual orientation largely motivated my interests in a similar path.

Nevertheless, I was drawn to the topic of contraception and abortion, given the significance of the agenda not only to my main supervisor and the research group at large but by the pressing global agenda on adolescent reproductive health. As a supervisor, her participation in an ongoing project on teen pregnancies and induced abortion in Sub-Saharan Africa influenced my decision to undertake research to contribute knowledge in this field. Further, the prevalence of teen pregnancies and low rates in use of contraception among this age-group in Tanzania were also motivating factors in my decision.

However, undertaking of the research was not without personal influences. The focus on exploring perceptions of ECPs was to some extent influenced by my personal aims in wanting to understand reasons behind non-use of emergency contraception when caught up in what I would term as a serious mistake. I admit to have a positive attitude towards use of ECP among girls as a quick savior, though their immaturity may influence overdependence on the method. With such recognition, I constantly tried to withhold these assumptions as I progressed with data collection despite the fact that attitudes of many nurses with regards to this contraceptive were obviously conflicting with mine.

Study location and settings

The burden of teen pregnancies within the Southern West Highlands Zone as reported in recent TDHS-MIS data (Ministry of Health et al., 2016a) influenced the selection of the region as a study location. However, the decision was to a certain extent also influenced by the fact that it is my place of residence and work. This meant easy access to familiar surroundings with less recruitment challenges and free office space for my research project.

Reflections on data collection and interpretation

Prior to conducting fieldwork, I assumed that as a young single mother of two, I am able to sympathize with adolescent girls thus, anticipated my role as someone who can help them unburden and disclose any emotional tensions they might be experiencing regarding modern contraceptive use and induced abortion. I was well aware that conducting interviews in girls' homes would make it difficult for open talks however; girls often gave me the opportunity to select the setting for our discussions. I thus, preferred the WEO offices as they were freely provided and guaranteed with privacy.

I made efforts to equalise power relations during discussions by repeatedly stressing the need to be open, the lack of judgment between right and wrong answers to questions and guaranteed privacy of setting and confidentiality of personal accounts of experiences. Surprisingly, I experienced muteness when trying to elicit girls' personal experiences of induced abortion, especially the ones in rural areas. I often had confusing thoughts as to whether they were honest or felt shame in disclosing experiences of this sensitive topic.

Moreover, being a Tanzanian native informed of the legal status of abortion and social norms of adolescent sexuality and working at public medical research institute located within a referral hospital compound; might have influenced their choice to report having no experience in termination of unplanned pregnancies. The third person accounts of induced abortion experiences among peers limited my intent to pursue lived experiences yet; the narrations were still useful in enhancing understandings of adolescent pregnancy termination practices. In addition, many had unrecorded questions about safe abortion shortly after completion of in-depth interviews.

My experiences with nurses differed from that of adolescents in terms of degree of openness about the discussion topics. To nurses, I was often perceived to be a fellow colleague considering my masters programme is related to health and my work position as a research scientist. This was evident in the way I was introduced by the matron and their ease to disclose accounts of contraceptive counseling experiences.

I refrained from immersing in literature review early on during my analysis so as to avoid the temptation of having to code, create categories and themes that are largely influenced by pre-conceived ideas of what is already known about the topic. I chose instead, to first analyze the transcripts then engage with literature as I discussed the findings.

Findings

In this section I will describe the study findings by presenting themes and categories identified during analysis. There are four major themes, each with two to four categories. The themes are the building blocks of a storyline that focuses on understanding adolescent girls' perspectives and experiences of modern contraception and pregnancy termination in Mbeya region.

I will start by describing ambiguities in adolescent use of modern contraceptives as perceived by nurses and girls, move on to explain how modern contraception is perceived as a sign of declining sexual morality among adolescents, illustrate the varied means the adolescents resort to in order to maintain societal expectations of being moral girls and finally wrap up with explaining nurse-client relationship as it plays out in the counseling room. I will present quotations from narrations of nurses and out-of-school adolescent girls, as an illustration of meanings and experiences of fertility control practices. These quotes are anonymised by only presenting the informant's age, residence or work position depending on whether the quote was extracted from a girl's or nurse's transcript.

Ambivalence to adolescent modern contraceptive use

This theme describes the perceptions of girls and the nurses about the use of modern contraceptives, including the prevailing ambivalence (on perspectives) with regards to their safety in reproductive and general health. In addition, the theme describes the existing myths and misconceptions attributed to the use of modern contraceptives.

Conflicting perspectives

The narratives about the use of modern contraceptives from the girls and nurses showed contradictory ideas with regards to who should use contraceptives and the benefits and suitability of using contraception during adolescence. Many viewed contraceptives as having both positive and negative attributes depending on the purpose of their use.

A recurrent explanation from the nurses was that the use of modern contraceptives during adolescence was associated with fertility risk with consequences showing up later in life, in particular during adulthood when they wanted to conceive. The side effect of secondary infertility was attributed particularly to injections. Chemical ingredients contained in this hormonal contraceptive were perceived to have the potential to delay a girl's fecundity when used consistently over a long period of time. From their standpoints, the use of injections was associated with infertility by drying the eggs (ovaries). One nurse described the fertility risk as follows:

“...this girl started family planning when she was young, you know these are hormones or let's say they are chemicals, it may reach a certain stage that she is not able to get a child, now this I am saying for those who use the injections. One of the biggest side effect is the delay in conceiving for a long time from 6 to 9 months after stopping, but there are those who stay for 5 years, 10 years they have not conceived...” [28 year old nurse, **family planning clinic**]

Generally, nurses preferred women to deliver below the age of 36 as they would otherwise be categorized into a risk group (associated with pregnancy related complications) if they were older. For this reason, the delay in conceiving as a result of hormonal contraception would expose them to maternal risks associated with delivering past this age.

The majority of the girls shared the notion that the use of contraceptives may come with fertility risk but argued that they have benefits including prevention of unwanted pregnancy.

Contraceptives were perceived to give freedom to experience sexual pleasure without the worry of conceiving when having bare sex. On the contrary, they were also perceived as suitable for women above 18 years and for girls who are sexually active. One girl explained why she did not think of preventing pregnancy by stating that *“because I have not started to sleep with men so I do not prevent [pregnancy]”* [17 year old rural girl].

Despite the perceived benefits of sexual pleasure and prevention of unplanned pregnancy, some nurses were displeased in counseling contraceptive use to students. However, they perceived their role as necessary in providing a helping hand in maintaining schooling status of girls who are studying. One nurse described how the discovery of contraceptive pills in a Christian boarding school would lead to suspension. The following quote illustrates a nurse’s displeasure in counseling contraceptive use to students but at the same time recognized it as a way of helping them to stay in school:

“...but I don’t like because they are still young, their age is small, why should they start using these issues of contraceptives eeh? She will use them when she enters marriage as well, she will need to use them so I don’t like these adolescents to use but we just use so as just to help them that we should help her, she is in school, she continues with school eeh” [32 year old nurse, family planning clinic]

With regards to the use of implants there were even more contradictory views among the informants. Some argued that implants are more appropriate than the daily use of pills for adolescents especially those in school because they stay longer in the body and can hardly be

detected by teachers or peer groups. The nurses also argued that pills require a nearly maximum adherence to daily use, which may be difficult for adolescents.

The use of implants was seen as an indirect strategy to protect the girls until maturity as they transition from adolescence to adulthood. The phrase “*their brains are not settled*” was connoted to describe girls as immature and thus vulnerable to poor decision making about sex. One nurse described how she counseled a post-abortion case and advised her to use contraception so as to have time to mature.

“these adolescents need much reassurance because their brains are not settled. So when they come here we explain it to them...for example there was an adolescent who got an abortion, so we advised her to use implants because she has already got an abortion and she was still young. We told her that implants will cover her a bit so that she matures... because you may find that someone comes aged 13, it becomes difficult, I mean first she doesn't even recognize herself, she can't even handle herself...” [38 year old nurse, family planning clinic]

Moreover, the majority of nurses also perceived contraception as a means to reduce the number of dependants from unplanned adolescent births in poor households that would in turn perpetuate household poverty. Despite the obvious benefits of preventing unwanted pregnancy, there was a strong belief among nurse informants that encouraging the use of contraception may also expose an adolescent girl to other health risks like sexually transmitted infections (STIs) including HIV. They argued that because the girls are still young, they can easily be misled to think that they are protected from diseases. One nurse said:

“When I am counseling a girl about family planning, okay, I think I have protected her against pregnancy, but my fear is HIV and other STIs. This is the challenge I am always facing with adolescents.” [28 year old nurse, family planning clinic]

In this instance, the use of barrier method of contraception for adolescent clients was perceived to be appropriate for prevention of HIV infection.

Contraception was strongly likened to family planning (FP), which was defined by girls and nurses as the planning of births between married couples. To some, it was inappropriate for unmarried adolescents to use contraceptives. This conception was reported by nurses as among the barriers limiting adolescents from seeking contraceptives at the family planning clinic. A girl described how her current single and unmarried status after having broken up with her boyfriend was the major reason why she was not using contraception: *“...I mean in contraception...maybe if I was married or I am in a relationship with someone but if I am just like this, I don't see the reason to use any contraception, I don't see a reason...” [17 year old rural girl]*

Fear, knowledge and misconceptions on contraceptive use

Many of the girls were aware of different types of modern contraceptives that included condoms, pills, implants and injections including the different means of administration. Few knew about IUD and only one knew about emergency contraception (morning after pills). Their knowledge of fertile days in the menstrual cycle was poor thus, failing to identify when to use emergency contraception in case they had access to the pills.

All the girls I interviewed except one were unaware and ignorant of emergency contraception. They reported not to having heard any information about emergency contraception from schools, the media i.e. radio programs, television stations, leaflets or significant others that involved parents, siblings and close friends. This was also reported by nurses to be the case not only for

many adolescent clients attending family planning counseling but adult women as well. When asked about adolescent knowledge of emergency contraception, a nurse stated that,

“Many adolescents do not have knowledge about these emergency contraceptives. They don’t have knowledge at all because of the environment from which they come from and because many have not received education about these emergency contraceptives. Even the ones using them they also don’t use them as they are supposed to because they have not received education on how to use them mmmh” ...” [29 year old nurse, maternity ward]

Sources of information about contraceptives were reported to be schools, overhearing adult conversations related to giving birth and family planning, small television and radio programmes and informal talks with peers, grandmothers and older siblings. Mothers were reported to be less likely to provide contraceptive information to their daughters because they think they are immature and not ready to be told about sex and fertility control issues. Grandmothers and elderly neighbors were also reported to provide traditional and modern contraceptive information. One of the girls said that:

“...to be honest, my mother has never told me about contraception because a parent sees you as very young while someone from outside sees you as very old, so a mother...cannot explain it to me like someone from outside. A mother will give you a small hint and say you are still a child” [17 year old rural girl].

All girls were informed that contraceptives can be accessed from health facilities and pharmacies/drug shops. However, only few reported to have actually visited a health facility for contraceptive counseling from fear of how they would be perceived by nurses and adult women

attending the FP clinics. The majority were experienced in using condoms because they considered themselves to be young to start using hormonal contraceptives which were associated with many side effects.

There were many misconceptions about the use of modern contraception and the associated side effects. A dominant concern among girls was that long-term use of contraceptives can cause excessive weight loss or weight gain, cervical cancer and excessive bleeding. Implants in particular were viewed to be painful and would come out during labor where babies would be holding them in their hands. The girls attributed causes of these side effects to the type of contraceptive method and diet. One girl argued that,

“others say it is caused by food, that is what I usually hear, they say it depends on food and the environment she lives in...for example...someone who gets all foods with protein, I mean she gets any type of food, it is simple for her [no side effects] and different from the one with a hard life...” [16 year old rural girl]

This information was reported to be learned from casual conversations with peers, grandmothers who were experienced in using traditional contraception and older siblings with lived experience of side effects. Another one narrated how excessive bleeding due to injections would disrupt her ability to engage in daily income generation activities;

“I am really afraid when they say you bleed for 3 months...I mean, that is what disturbs me. Because I will fail to do other work because you know when you are bleeding... though I am not sick but I will not be at peace to walk around selling watermelons. When I take injections then start bleeding until 3 months are finished, will I do business? I will fail; this is how life is...” [19 year old urban girl]

Clients attending the family planning clinic were also perceived by nurses as perpetuating misconceptions in using modern contraception as many would engage in casual talks of their experiences or ongoing rumors while waiting in the queue. This is explicit in the following account from a nurse,

“...even here when they sit there outside [referring to outside the door where there is a queue], they explain to each others that it is like this and this...I mean it is a must that they will talk about family planning...even when you just find them there waiting for services, they will sit and ask themselves, what method are you using? Why is it that I get this heavy bleeding?...” **[33 year old nurse, family planning clinic]**

Moreover, nurses viewed mothers as among people contributing to such ongoing myths but one nurse justified this as a strategy to integrate fear of contraceptive use among their children. She stated that,

“...but at other times she might tell you that my grandmother told me or my mother told me so you just know that it is one of the strategy to scare her so that she doesn't use...because a parent might have many strategies, she tells you that so that you fear. She [the girl] won't do it, she will fear...” **[29 year old nurse, maternity ward]**

This shows how fear is used during interactions in order to enforce avoidance of using modern contraception during adolescence as well as overcome immoral sexual practices during this vulnerable age.

Adolescent contraception as moral decay

This theme entails an understanding of adolescent contraception as among the means that contribute towards perpetuation in the decline of sexual morality during adolescence. I will describe what I observed as a prevailing moral disintegration expressed in accounts of nurses and girls as they discussed about modern contraception and ongoing changing patterns of sexual practices among youth. I will begin by describing accounts of adolescent sexual immorality; unfold what entails an ideal transition to adulthood, explain perceptions on how to shape adolescent abstinence and finalize with religious dilemmas in adolescent contraceptive use.

Immoral sexual practices

All adolescents who attended the family planning clinic were described by nurses as sexually experienced and engaged in single or multiple partner relationships. Sex was for some clients practiced without the use of contraception thus; some girls had unprotected sex assuming that they will not conceive. This was also true to many of the girls I conducted IDIs with, though the ones in the rural areas were a bit reserved in discussing about intimate relationships.

Accounts of ongoing practices of adolescents choosing to engage in secretive sexual relationships and clandestine abortions were common among both groups of informants. Girls reported to having boyfriends as common and a consequence of peer pressure. On the one hand, this was perceived by girls to be sexually immoral considering their age thus often kept a secret among close friends. Disclosure of having a boyfriend and illegitimate pregnancy termination to parents, guardians or older siblings was perceived as a taboo and subject to verbal abuse and/or physical beating. A girl narrated how difficult it would be for her to disclose her relationship to her aunt as she feared to be thrown out of the house. She said,

“...to be honest, I can’t sit and tell my aunt that I have a boyfriend. I can’t even tell her that I have inserted an IUD...he comes to meet me here in secret...we are planning to get married someday, even if she catches me, I will deny it, I don’t want to get kicked out of home...no matter how hard she will force me to say it, I will deny it” [19 year old urban girl]

On the other hand, these secretive sexual acts were acknowledged to exist as a current trend among adolescents and were perceived as a sign of continued moral decay in society given that many are initiating sex at young age. When describing this trend, a nurse said that:

“Because nowadays I cannot be surprised, someone comes she is 12, 13 she is pregnant, I cannot be surprised. So now what will you do? They say if you taste the sweetness of honey, you cannot stop it. So it is like that. It is just that we advise them there are effects to starting sex early... some may understand you but others will not understand you” [33 year old nurse, family planning clinic]

Transitioning to a blessed adulthood

A “blessed adulthood” was a concept that arose out of an individual discussion with a nurse at the family planning clinic. It entails a number of characteristics namely; abstinence from early sex, prevention of early and illegitimate pregnancies, completing school, getting married and having self-capacity to manage ones needs and development. This was implied by the nurse as she envisioned how adolescents should behave in society and perceived it as the ideal path in transition to adulthood that all adolescent girls are expected to target. She narrated how she often counsels adolescent clients about aspiring for a blessed adulthood as illustrated in the following quote;

“I just insist on the effects of early sex, that is what I don’t usually miss to tell them that my sister, you have started sex early but make sure you do 1,2,3 so that you reach a blessed adulthood that is understood...” [38 year old nurse, family planning clinic]

The concept also involved maintaining a healthy body as one transition to maturity. This meant the avoidance of using contraceptives which were perceived with uncertainty with regards to the duration in which side effects would stay in the youthful bodies. The notion is illustrated as the nurse continued to narrate in explaining her challenge in understanding girls’ bodies many years later after consistent contraceptive use. She stated that,

“To adolescents, the challenge that I see about family planning, they change the whole body system. If [she] ...starts to use these family planning methods let’s say since she is 14 until when she reaches an adult of 40 years, I ask myself how will her body be? How might the body cope eeh? the hormones that are released from these family planning methods in her body? I mean personally I see it as a challenge to her, how will her end up be?...” [38 year old nurse, family planning clinic]

The nurse expressed feelings of sympathy for her adolescent clients but reported to be limited in findings ways to help them transitioning into a blessed adulthood.

Shaping adolescent abstinence

Despite acknowledging an increasing pattern of early teenage sex as described earlier, the current Tanzanian society was on the contrary perceived by some nurses as passively resistant to accept the use of contraceptives by this vulnerable group. A recurrent view among nurses was that of

the importance of adolescents to abstain from sex until marriage and our conversations in this case, were focused on a number of ways of how to promote it.

The quote, “...*the society we have is old; it does not want to go with time...*” is a statement from a nurse at the family planning clinic, that was included in her explanation of a dilemma in the need to maintain local moral values of adolescent sexuality while at the same time pressured to conform with international goals of ensuring universal access to modern family planning for all women. This dilemma was similarly implied by other nurses in their accounts of recommendations on strategies that would help overcome challenges associated with early sex and unplanned teenage pregnancies in the community. These involved educational strategies that were generally perceived to help shape adolescents’ ability to abstain from sex and unsafe induced abortion practices.

The suggestions were focused on provision of sexuality education to primary and secondary schools as well as general community in order to reach girls who are out-of-school. Recurrent suggestions emphasized education about the consequences of engaging in early sex before reaching adulthood, clandestine abortion and the importance of abstaining from sex until marriage. The following quote illustrates the perceived role of sexuality education in shaping adolescent abstinence as described by a nurse:

“First of all this education should target to teach adolescents on how to stay with that [sexual] feeling until they reach adulthood to be able to get married. It should target to educate the effects of early initiation of sexual intercourse...There should be enough education everywhere for adolescents so that they know that now they are supposed to study because it is the time for school...” [38 year old nurse, family planning clinic]

In addition to this, a more common view was that nothing should be taught on how to use contraceptives at schools (except for pregnant girls) because they would be more knowledgeable about how to control their fertility. This would motivate them to further engage in sexual relations. One nurse explained her preferences for withholding contraceptive information to adolescent girls in schools anticipating that it would expose them to greater health risks. In view of the standard curriculum, FP was suggested to be taught but she narrated:

“...if you say they should be taught, they will start using them while they are still young, something that will also be a problem. You may introduce something that you think might help them but perhaps it further destroys them...I think it is better that these family planning methods should be taught to these adolescents that are pregnant...because if you look, a large percentage of us Tanzanians, if you teach on how to prevent pregnancy for adolescents, you have advertised a disaster. Many will use those methods and the effects will be many because if someone uses these contraceptives, it means she will get STIs and she will get HIV...” [29 year old nurse, maternity ward]

Nevertheless, others had the view that transparent education on contraceptive use should be provided to all adolescents with parents being at the forefront at enforcing restraints that promote abstinence.

Religious dilemmas: do they remember God?

The role of religion in modern contraceptive use was described to be two sided and depending on one's direction of argument, it may promote or discourage adolescent use of contraception. Generally, the notion of sin and its attribution to adolescent sexuality was a decisive factor in justifying the use or non-use of modern contraception.

The reasons arguing for use involved labeling induced abortion or choosing to give birth to a baby you cannot nurture as sins that can be avoided by preventing pregnancy through contraceptive use. Where religion was described to discourage modern contraceptive use, reasons were attributed to adolescent sex as a sin. One nurse explained how religious beliefs are also a barrier in getting contraceptive messages across during adolescent counseling. In addition, Christianity teachings were reported to argue that God commanded people to reproduce and fill the world thus; the use of contraception was an act against the word. This notion is illustrated in the following quote from a nurse;

“...especially for Christian beliefs, they say those sperms are people’s lives so they are throwing them away. Also for implants... since it prevents women’s ovaries from maturing, so it is like they are preventing God’s creation from happening” **[28 year old nurse, family planning clinic]**

The Pentecostal denomination was reported by nurses and girls to agree on the notion of planning and spacing births among adult women. However, there seemed to be contradictory perspectives of whether their teachings allowed use of contraception among adolescents. On the one hand, nurses perceived sexual activeness of adolescents as a justification for use of contraception. This was also the case as they perceived the majority of their clients to ignore God and lacking religious values to help them in judging morality of their sexual actions. The following quote illustrates a nurse’s account of lack of remembrance of Godly teachings as a statement that was included in her description of how religious beliefs influence adolescent sexual practices. With a surprised look, she stated,

“Aah [surprised look] do they even remember God really? [a raised eyebrow] I don’t think if they even remember God. They just think about sex only...hahaha...they don’t talk anything about religion...” **[38 year old nurse, family planning clinic]**

On the other hand, although many of the girls reported not to be consistent church goers yet they were explicit about the fact that religious seminars on family planning would either exclude adolescents from participation or if they were allowed then there were limits to the extent of their participation often in terms of what questions they were allowed to ask. In describing an experience of attending a family planning seminar organized by the church for young and adult women, a girl described her lack of courage in asking questions while surrounded by adult married women.

A less common instance was a description of conflicting feelings of morality that were experienced by two nurses as they balanced their religious beliefs with work duties during adolescent family planning counseling. These nurses described themselves as “saved” i.e. those who had received salvation and perceived adolescent use of contraception as inappropriate yet, owing to their job demands they were expected to silence their beliefs. When questioned on the influence of religion in contraceptive counseling, one of the two nurses stated that;

“It happens but now there is no way, you just have to help her, you can’t leave her because she will get diseases, ...unplanned pregnancies, we usually help. For me, I can’t leave her to go like that. Though my beliefs don’t allow but it is like that...” **[33 year old nurse, family planning clinic]**

The other nurse narrated how she would refuse to advise contraceptive use to adolescents when outside of the hospital setting.

Nevertheless, a strong belief in religious values was described by both groups of informants as facilitating abstinence from adolescent sex and use of contraception. Those raised in religious families also known as “saved families” or those who were themselves “saved adolescents” were labeled as decent. One saved Christian girl explained how her strong religious beliefs have shaped her choice to neither engage in sexual relationships before marriage nor to use modern contraceptives. She said that:

“I thank God that because I have been raised in religious places so for issues of relationships, our religion disagree. Eeh [yes] it is not allowed to have a man until when you, I mean when God gives you a good husband hahaha” [19 year old rural girl]

However, adherence to religious beliefs that contradict contraceptive use was reported by nurses to be declining over time. Given that life is becoming difficult, giving birth to many kids implied failure to raise them and this has been posed as a justification for modern contraceptive use irrespective of religious constraints.

Protection of social identity as moral girls

This theme entails a description of the role of social expectations in influencing adolescent girls’ sexual and fertility control practices. I will begin by explaining how girls negotiate their way in protecting their self-identities in a community that is perceived to be conservative with regards to adolescent sexuality where open talks on sexuality with significant others such as parents and older siblings is considered to be a taboo. I will proceed to describe reasons underlying adolescents’ choice to perform clandestine abortions and its perceived safety.

Maintaining dignity through secrecy

The concept of blessed adulthood as explained earlier is a reflection of societal expectations to adolescence. However, from the girls' point of view, complete adherence to these expectations was difficult and this was reflected in secrets related to early sexual initiation, decisions to have boyfriends, clandestine abortions and the use of modern contraception. Secrecy was in this case, a means to an end that enabled the girls to conceal acts that broke social norms in the community.

Disclosure of having a boyfriend is also a disclosure of being sexually active before marriage. It also meant that they were likely to be perceived as promiscuous, which could damage their social identities. A conversational talk on fertility control with a parent, guardian or older sibling implies a hint for sexual activeness thus, not entertained in families. When asked about the willingness to discuss contraception with parents, a girl stated;

“How will I even start to discuss that with my mother? She will think I have started having sex...if I mention anything about contraception my father will be furious...he is strict, am not even allowed to sit outside to talk with my girl friends...” [16 year old rural girl]

However, few girls reported the opposite where willingness to discuss these issues was determined by the degree of closeness between the adolescent girl and the significant other as well as the significant other's attitude towards modern contraception and abortion.

It became clear during the interviews that reproductive health though deemed important was less valued compared to maintaining secrets about acts of sex and intentional cessation of pregnancy even at the expense of their life. The social norm that adolescence should be associated with

abstinence from sex was reported as a driver for the context in which contraceptive use and abortion is shamed during adolescence. Nevertheless, secrecy was an advantage that nurses used to promote consistent use of contraceptives among adolescent clients. This was reported by a nurse in her description of disapproval to involve parents in contraceptive decision-making. She stated,

“...because when the child tells her parent that I want contraception, it means the mother in her thinking will know that my child has started meeting with men so she [the girl] is afraid, so many things she will be doing in secret...for example, for an adolescent who comes to get service, to a certain extent we don't also want to involve their parents so that they won't get barriers. Meaning that if she involves the parent, she will have challenges at home, she may stop taking pills and throw them away...because a parent is not willing to see her child entertained by us to meet with men because she is preventing pregnancy.” [28 year old nurse, family planning clinic]

An inherent fear among girls in disclosing the details of clandestine abortion conducted through medical or traditional means was observed in accounts of pregnancy termination practices.

Despite nurses' efforts at providing several probes often through varied angles, girls chose to uphold their secret until when they experienced serious incomplete abortion complications. Girls attributed their condition to miscarriage or an illness unrelated to the reproductive system such as headache, dizziness, upper abdominal pain and pain in the legs. A nurse narrated how surprised she felt after seeing an adolescent at the hospital for post-abortion care (PAC), coming alone without an escort while in critical condition.

Further, cases where clients (in this case adolescent girls) chose not to disclose induced abortion even after presenting themselves for physical examination through a speculum check were described. The fear of being labeled promiscuous while at a young age was evident from accounts of both nurses and girls as they described third person scenarios of common induced abortion practices in the community and through cases presented at the hospital. A nurse at the maternity ward explained how secrecy prolonged an abortion complication to death.

“...another one we received her few days ago, she was afraid of her mother, to tell her...that she aborted a pregnancy. She came and said that she is sick from malaria, ... from headache while it is the [lower] stomach, so they hospitalized her. Later they screened her for malaria parasites but she didn't have, they ... said now we are releasing you to go home, but she said no! She said she can't go back because she aborted a pregnancy... they brought her here [maternity ward] and we cleaned her but the girl died the second day. They were too late, they took out...decayed things, she aborted her pregnancy at a health center... that was private now they didn't abort it well but when interrogating her she said that she feared her mother who was said to be harsh. We cleaned her, we added blood, she died” [33 year old nurse, family planning clinic]

Secrecy of one's immoral and illegal acts was constantly mentioned as a means for preventing shame, covering one's sexual activeness and protection from cursing, yelling and beating that is anticipated from family members and adult members of the community.

Resorting to clandestine abortions

Termination of unplanned pregnancies among adolescents is a widespread practice but honest disclosure of such practices was reported by nurses to be a challenge as many girls chose to lie. These were conducted through medical or traditional means but all under secretive conditions. Since a visible illegitimate pregnancy was shamed, induced abortion was a means for masking one's sexual activeness.

Clandestine medical abortion services were reported to be performed by healthcare staff at health centers or hospitals. However, this was not free rather they were paid in privacy as a thank you gesture "asante" for the help that was provided. The use of misoprostol as a drug to induce abortion was described to be common by both nurses and girls. Girls would access it from a local pharmacy often having heard from peers or a prescription from a health staff (doctor or nurse) written under secrecy and privacy. The pills were reported to be taken orally and vaginally.

Traditional abortion practices using cassava leaves, tea leaves and ashes were also reported to be common. Other methods involved drinking detergents and inserting sticks. The appropriate dosage was unknown and there were contradictory remarks on the success of such mechanisms, with the majority ending up at hospitals. In describing different ways of inducing abortion in the community, a girl narrated how some would opt to mix herbals with misoprostol as she stated;

"...as they say in Kiswahili "watoto wa siku hizi" [children of new generations] for example like our street there, when any girl gets pregnant , there is usually this habit that she boils some leaves from certain trees and drinks the extract. Then she also drinks pills... she takes ashes and drinks it before it grows, she drinks [the ashes] and then she also drinks pills" [17 year old rural girl]

A dominant reason for resorting to traditional abortion was not having enough money to pay or buy off the doctor for safe and secretive medical abortion service. A rural girl, in her description of the reasons for a girl's preference to risk for traditional abortion stated that;

“She may not like it. She wanted to go to the hospital...to be given good things to drinkbut money is the problem. It makes her to do that because it happened out of bad luck. You find that she does not take pills...she does not have money to go to the hospital... if she asks her parent, you find that it is a problem a bit so she may just decide let me just do this...” [17 year old rural girl]

There were contradictory perspectives of safety of medical versus traditional abortion techniques. To some, the abortion pills which were often taken in secrecy were perceived as unsafe, with cases ending up in complications or death. This was also evident in nurses' narrations of adolescent preferences for misoprostol as a substitute for traditional abortion techniques yet still ending up at the hospital with complications. A girl expressed her opinion in the following quote;

“... for example in the hospital, it means when someone tells you to go and abort at the hospital, it means there is safety at the hospital, it is more safe than buying pills at a pharmacy and taking them. It means you can't compare the hospital to the pills you bought at a pharmacy...” [28 year old nurse, family planning clinic]

Medical abortion was perceived by others as associated with fewer complications thus safer compared to traditional techniques. When comparing the two, a girl argued for hospital abortions by stating that;

“you may go to that doctor and he will be able to remove it well but not to a witchdoctor...who aborts. The things you will find at the witchdoctor and the things you will find at the doctor are different completely... this one may tell you to drink weird things but the doctor will advise to give you medicines” [17 year old rural girl]

To others, opting to go to a health facility particularly a health center was equally unsafe as one might be attended by an inexperienced health staff such as a medical intern or someone who isn't qualified. This was a perspective that was shared by nurses as they explained instances where they received clients with incomplete abortion complications from health centers.

Nurses reported to attend adolescent clients with severe incomplete abortion complications namely; chronic abdominal pain, heavy bleeding, anemia and foul smell. Many of the girls visited the hospital at a later stage when they could not tolerate the abdominal pains or feared loss of blood, with few cases leading to death. Death cases from unsafe and often secretive abortion practices were also reported among few adolescent girls as they gave third person narrations of not only peers, but adult women as well. One nurse narrated how a delayed case of unsafe abortion resulted in an end of life;

“...The girl seems like she stayed with the pregnancy and reached a certain stage and went for abortion. When she used that medicine, the pregnancy didn't come out but I think she bleed and thought the pregnancy came out while it continued to grow. Now her friends were surprised, why is your stomach that big? What do you have? She was stunned later that it is true she is pregnant. She drunk medicines, what medicines she took? It is unknown, she was brought in the middle of the night. When they reached just at the reception, they were struggling...we were informing the doctor, putting a drip,

checking pressure...there was nothing for the pulse, she died” [27 year old nurse at maternity ward]

Informational sources for different methods of terminating unwanted pregnancies were informal conversations with peer groups and in rare cases, adult neighbors who are perceived as experienced. The sought for advice was conducted in secrecy and desperation. It was also noted that discussing with many friends leads to confusion as each would advise different ways often lacking specific details on dosage as exemplified in the following quote from a girl,

“...for girls, you sit together and you may tell your friend that it is like this... she tells you maybe use a specific method. [Then] There comes another one who tells you differently, so you become confused. Instead of getting an advice from one person, you go to everyone, I mean you confuse them and get confused....” [16 year old rural girl]

In addition, girls reported mothers as sources of support in performing abortion, often not involving or disclosing to fathers. They explained how some mothers would support their child for clandestine abortion upon knowing that she was pregnant. On the contrary, a nurse described how this secrecy would be exposed to a girl’s father during an encounter in escorting the adolescent to the hospital. She narrated;

“The one who carries a big secret is the mother... [She] usually accepts but the father doesn’t usually know, she just tells him let’s take her to the hospital [we will discuss] other things later. So she is escorted by relatives of which some know, some don’t know maybe the father may just know because she is [brought to] maternity ward... for reproduction...[the father would question] why didn’t they take her to the female ward but took her to maternity?...” [38 year old nurse, family planning clinic]

The choice to perform clandestine abortions by unsafe means is perceived as necessary in order to keep it a secret and protect their status as moral girls.

Controlling contraception in the counseling room

This theme describes how modern contraceptive knowledge was enacted during the counseling process with adolescent clients. Contraceptive counseling would take place either at the family planning clinic or at the maternity ward after delivery. These were private settings where nurses' authority of medical knowledge was explicit through different activities ranging from negotiating preferences for appropriate contraceptive methods to decisions of how and when to provide PAC services to adolescent clients. The counseling room is an area where pregnant and non-pregnant, in-school and out-of-school adolescent girls regardless of marital status chose to disclose their need for fertility control through modern means.

Negotiating contraceptive choice

Adolescent clients attending contraceptive counseling were described as girls who were experienced in issues of sex, often with them having sexual debut between ages 12 to 15. This was also the experience of the girls I interviewed from the community, where the majority reported to have begun sex at ages 14 and 15. All clients were counseled on available short and long term contraceptives, including a description of associated side effects and benefits however, many were reported to frequently question the long term side effects on fertility and general health. One of the challenges in such conversations was the inability of girls to adhere to dosage schedules. One nurse described this challenge as follows;

“...you may find that others are not understanding at all I mean you educate her, you tell her that you take every day one pill, you find that someone may tell you mmh yesterday I forgot to take a pill. Now it is something that you cannot prevent...and another is that you may educate someone that you have to take injections so would you please come back after 3 months so as to take another injection, when she goes there, she forgets completely until that time is expired. When she comes she starts afresh...” [33 year old nurse, family planning clinic]

The process of counseling an appropriate contraception for an adolescent client entailed negotiations of side effects and benefits, prioritizing secrecy as well as the potential of a method in maintaining one’s schooling schedule (for those who are studying) without frequent disturbances of attending the clinic for contraceptives. The decision-making process was reported by girls not only to involve suggestions from nurses but significant others as well. Advises from grandmothers and older siblings were valued since they were perceived as experienced.

The use of implants was a dominant preference among nurses because they stay longer in the body and not easily visible to others who may be judgmental. However, as explained earlier, girls associated implants with pain, delivering babies holding it and infertility. Nurses therefore, negotiated their preference for implants by explaining how everyone’s body reacts differently to contraceptive hormones and guaranteeing safety and relief from side effects by taking other medications or changing to another contraceptive method. The following quote illustrates a nurse’s conversation with an adolescent on use of implants;

“That is when I told her for everyone it depends on her blood, the way the hormones for the implants associate with her hormones. There are others whose blood does not

associate with implant hormones, that is why there occurs those side effects but sometimes you may be given a medicine and you will be fine. They are changes that happen within the body. So I told her that if I insert it to you and it causes side effects, it means you can come back and see if we can give you medicines or not. Or we might remove it if it causes side effects, and give you another family planning method that you will go along with...” [29 year old nurse, maternity ward]

Withholding information and services

Despite the fact that nurses reported to provide counseling for variety of short and long term contraceptives available at the clinic, emergency contraception was mentioned only after I probed for its availability. There were instances where information on emergency contraception was not disclosed to adolescent clients. The act to withhold explanations about ECPs when conducting contraceptive counseling to adolescents was a recurrent choice among discussions with nurses. ECPs were regarded as appropriate for adolescents who have been raped. A nurse said that,

“...and those [emergency contraceptive pills] we give to those who are already raped, the ones that are raped but very often these [adolescent girls], don't know if there is anything like that.” [38 year old nurse, family planning clinic]

The reason for nurses to refrain from disclosing this information was the need to prevent adolescents from continued unprotected sex and overdependence on emergency contraception. It seemed to be a way of helping to shape the future of the community where adolescents will not perceive it as a game that entailed resorting to seeking ECPs after every instance of unprotected

sex. Further, nurses described how having such information would lead to what was anticipated as “great destruction” in the future. One nurse stated her opinion of ECPs by saying that;

“The emergency method? aah [surprised look]no honestly, very often I don’t talk about that because I usually think that if I talk about it then she may continue with what she is doing[having sex], something that may destroy the whole system.” [28 year old nurse, maternity ward]

The terms “great destruction”, “destroying the whole system” and “destroy the nation of tomorrow” were meanings connoted to a consequence of increased pattern in adolescent sexual relationships in the community if information on emergency contraception is provided.

There were also less common accounts of cases where PAC services were provided on condition that an adolescent discloses how or what she did to perform clandestine abortion. This was evident in nurses’ descriptions of the difficulties they experienced in convincing an adolescent client to open up. One nurse said;

“...for example like that method of cassava, you may find that she tells you that I have stomach pain. How does the stomach pain? [she replies]The stomach is paining but if she takes a long time, you may find that she tells you that I have pus coming out of my genitalia, you find that she has a foul smell. Now if you have probed her depending on her condition, then it reaches a time that you tell her, because you are not open, let us just leave you to die, that is when she will say 1,2,3...” [33 year old nurse, family planning clinic]

Another one narrated how such challenges were also experienced with doctors as they worked to provide evacuation services. She narrated;

“ Mmmh mmh [no] they are not open. You will wait even for hours and hours, they don’t say it. Now our doctors here who receive them also do not clean them that easily, they just know that this person aborted, it was not a miscarriage. He leaves you with a lot of pain, he tells you until you say the truth is when we will clean you. It is a must that you start to explain yourself, I went to [a certain place]...” [33 year old nurse, maternity ward]

The conditional provision of post-abortion care (PAC) services was dependent on extent of disclosure and withholding of emergency contraceptive information, were perceived by nurses as means for encouraging disclosure rather than a characteristic of unfriendly adolescent reproductive health services.

Interrogation practices

The contraceptive counseling process was perceived by girls as an interrogative session overburdened with questions related not only to potential side effects but also age of sexual debut, number of partners, frequency of sex and induced abortion. These questions were described to cause personal experiences of tension associated to adolescents’ choices of aspiring to use contraception. Although the girls were informed that contraception are freely available at clinics, such questioning was anticipated to arise feelings of shame related to deviating from moral values. This perception of counseling was also known among nurses as one narrates in the following quote,

“Many have fear. I think they are kinds of people who have already been told that when you go to the hospital and you are young, nurses yell. They are furious so when they come here they are already prepared that if I reach there, there is something like this. So

when she asks her questions, already she has fear so now it means that when you are asking her, you should be okay so that...she sees you as her fellow child.” [28 year old nurse, maternity ward]

Girls feared such inquisitive practices and this is evident in a nurse’s account of an adolescent client who chose to leave after being interrogated. She said,

“I have met one child who said, I mean I just want to join family planning. I told her, but why? You are still young. Why should you join family planning? Are you in a relationship? No. [she answered] you find that it is just that, she goes away, she doesn’t want” [28 year old nurse, family planning clinic]

The act of choosing to attend a family planning clinic was also reported to attract attention for questioning from adult women who were also in the queue for contraceptive services. One of the girls described her fear for seeking contraception from a health facility by saying that;

“ ...it is my boyfriend who buys condoms, I don’t know where...I can’t go to get pills from the hospital, there are adults there, what will they think of me? Do you understand? I might meet someone who knows my mother and she will ask me what am I doing there. She will tell my mother...” [17 year old urban girl]

From the nurses’ accounts, questions implied the importance of maintaining a focus on studying as well as to enlighten them that they were still young to be engaged in sexual relationships. Girls were advised though in a question format, to see the need of excluding themselves in relationships while in school. This is illustrated in the following quote that describes how a nurse often advises girls to see the importance of not mixing school with intimate relationships;

“A case that we have met recently is a girl studying at form 2 who aborted, she is about 14 years or 15 years old. She came with an abortion and we asked her why did you abort? ... So we sat with her and educated her that if she wants to study, these things should not go together with school. Relationships at school and [when] you have a boyfriend is very difficult.” [33 year old nurse, family planning clinic]

However, nurses’ efforts to influence this line of thinking were reported to be unhelpful as the girls who attended the clinic had already made up their minds of wanting to use contraception.

Discussion: Morality and safety in contraceptive use

In this section I further interpret my study findings using the theoretical concepts of social norms and authoritative knowledge. I also draw upon related existing literature on adolescent reproductive health in order to compare the findings with findings from other areas. The discussion is organized around issues surrounding morality and safety of modern contraception among adolescents. Further, I will discuss strategies adopted to enhance trustworthiness of the study findings and end with a discussion of limitations of the research.

Girls maneuvering in a morally charged landscape

As described in the findings, secrecy was an important means in masking deviance from social expectations attached to adolescent sexuality. Adolescents reported engaging in sex and having sexual partners who were kept a secret from significant others and the general community. The choice to engage in sexual relationships was also observed to result from peer pressure where having boyfriends is perceived as a fashion. This acknowledged trend in early sexual debut is in agreement with other studies in Tanzania (Kazaura and Masatu, 2009, Madan Mohan, 2013).

It is a reflection of how young people use secrecy as a strategy in gratifying their sexual needs against that which is idealized and moralized by society. As active agents in their own lives, they maneuver between the expectations to have sex from peers, boyfriends and themselves, and the prevailing norms of abstaining from out-of-wedlock sex.

The role of secrecy in managing adolescent sexual practices is similarly reported in a study in Northern Tanzania (Haram, 2005). In that study as well as in our findings, adolescents engage in love affairs hidden from the general public in order to maintain their status as moral beings. It is a way to handle intimate teenage relationships in a morally acceptable way. These choices

illustrate how social norms on adolescent sexuality are passively critiqued and/or resisted rather than unquestionably constraining adolescent sexual behavior. The extent to which they govern behavior is dependent on an adolescent's judgment of the importance and ability to conform with sexual morals embedded in the community. For instance, saved girls chose to abstain from premarital sex because it was important to abstain from this 'sinful behavior' and perceived God as helping them to avoid sexual temptations.

Accounts of anticipated consequences such as verbal abuse, physical beating and shaming which result from deviating norms of legitimate pregnancies as expressed by girls, mirror sanctions associated with unplanned teen pregnancies as they are enforced by family members. The resort to unsafe clandestine abortion practices was also described as a consequence of fearing such sanctions rather than the fear of legal sanctions related to the illegal status of induced abortion. Social norms are argued to be maintained through informal sanctioning mechanisms exerted by social institutions and members during social interactions (Maria and Bruce, 2014). The finding reported in this thesis is a reflection of how normative models exerted by the family shape fertility control practices and experiences among its young members.

In addition, girls' fear of perceived stigma in seeking contraception from a family planning clinic due to interrogation from nurses and older women at the clinics; are instances experienced, where norms are informally enforced through clinic interactions. Such perceived stigma and interrogative practices are in turn obstacles for modern contraceptive seeking behavior among adolescents. This is in agreement with findings from a research of barriers in adolescent contraceptive use in low and middle income countries (Venkatraman et al., 2014).

Religion is an institution that has been argued to be an agent of socialization where norms on sexuality are communicated to its members, internalized and confirmed through informal sanctions(DeLamater, 1981). This is evident from our findings where we see that through the concept of sin, notions of appropriate adolescent sexual behavior are defined and perpetuated within the institution.

In religious institutions, social norms on adolescent sexuality are learnt through religious teachings, for instance, during specific women seminars on family planning as described by one of the girl informants. Persons with strong Christian beliefs, also known as “the saved” are thus exposed to notions of sinful behavior if engaged in out-of-wedlock sex, illegitimate pregnancies, use of contraception and intentional termination of pregnancy. However, this is not to say that social norms work only among the saved, rather the morale is stronger in the saved.

However, the findings revealed that there is gradual decline in adherence to religious teachings that contradict contraception use because of life difficulties in managing many children. In this stance, the choice to avoid use of modern contraception because it is a sin and an act against God’s command to reproduce and fill the world is questioned. This individualized passive resistance to conform to such teachings concurs to findings from a literature study on religious influences on contraception (Srikanthan and Reid, 2008). It is also a reflection of how social norms are critiqued and the extent to which they govern behaviour depends on individual judgments on perceived benefits associated with conforming to these norms.

The choice of “saved girls” to refrain from sex and using contraception because they were young and unmarried, mirrors internalization of religious morals governing appropriate age and conditions for sex. This finding is shared by a systematic review on the role of religious beliefs over adolescent sexual debut (Rostosky, 2004). The influence of religious beliefs is also evident

to the case of the “saved nurse” who outside of the hospital setting perceived modern contraception as inappropriate for adolescents; implying experiences of moral tension as she moves across various roles and settings.

We have observed that sexuality or fertility control talks with significant others is generally perceived as a taboo topic for discussion but it is entertained with peer groups and outsiders such as adult neighbors. These findings are in agreement with studies from Tanzania (Haram, 2005) and Ghana (Bochow, 2012) which describe how similar social norms on adolescent sexuality shape secretive sexual practices and conversations with parents.

Ambivalent perspectives with regards to adolescent use of modern contraception were observed from both nurses and girls. These were caused by underlying notions of uncertainties about reproductive health safety of modern fertility control interventions over young people’s bodies. Such uncertainties are perpetuated by misconceptions on exaggerated side effects for instance the risk for cervical cancer. These have been widely reported to influence decisions for use and consistency in using modern contraceptives by studies conducted in other parts of Tanzania (Chebet et al., 2015) and other African contexts as well (Chebet et al., 2015, Gueye et al., 2015, Kabagenyi et al., 2016, Ochako et al., 2015).

The ambivalence is reflected in the fact that on the one hand, modern contraception was a fertility risk and inappropriate for unmarried girls. On the other hand; it has the benefit of allowing girls to continue schooling while experiencing sexual pleasure without fear of conceiving. For instance, long term methods were preferred by nurses because they stay longer in the body but were associated with secondary infertility. These contradictory perspectives are similar to findings from qualitative studies on healthcare perspectives of young people’s use of contraceptives done in Uganda (Paul et al., 2016). The fear of contraceptives as implied by

risking one's fertility may be related to high value put on fertility and motherhood in the community. Women primarily gain status and respect through childbearing however, timing is important as childbearing is expected to occur after marriage.

The findings reveal how social norms on adolescent abstinence and sex as appropriate within marriage play a role of influencing perspectives of contraceptive use among adolescents. These norms produce ideologies that are internalized and followed by the community members including nurses and girls. They indirectly work to generate ambivalence or contradictory notions on appropriateness of using modern contraception during adolescence. For instance, they are reflected through nurses' discomforts on counseling contraceptive use to adolescents but in doing so because it is their responsibility. This is an expression of moral tension where nurses perceive the discourse on adolescent use of contraceptives as wrong but end up conforming to the discourse because it is part of the responsibilities attached to their work.

Furthermore, the counseling process was not only a transmission of knowledge on modern means of controlling fertility but also an arena for transmission or reinforcement of social norms to adolescent clients. This was evident in nurses' interrogation practices of the girls' intent to use contraception instead of focusing on school. In this stance, nurses are moral beings carrying with them community norms as they work in the hospital.

Nurses taking on responsibility as moral guardians

We have observed that there is not only poor awareness of ECPs among adolescent girls but also limited knowledge of fertile days within the menstrual cycle. This is consistent with research findings from Dar es Salaam and Nigeria (Abubakar et al., 2010, Godeliver and Goodluck, 2013). Further, nurses preference to withhold emergency contraception counseling (except for

adolescent clients that have been raped) because it is seen an encouragement for girls to engage in unprotected sex reflects the double role of nurses as medical and moral agents within contraceptive counseling. It also implies how authoritative knowledge (which in this case is nurses' knowledge of family planning methods) is used by nurses to prevent young people from accessing contraceptives that are perceived to facilitate moral disintegration.

A study in Uganda (Nalwadda et al., 2011) shared this finding as it reported discomforts of health providers in giving young people contraceptives because it was morally unacceptable. It is evident here that nurses are both professional and moral beings living in a community sharing similar social norms which in turn, interplay with professional ethics to govern their attitudes on adolescent contraceptive counseling. This internal conflict between social norms and professional values was also reported in another study from Uganda (Paul et al., 2016).

There is contradictory evidence (Harper et al., 2008, Raine et al., 2000) in use of emergency contraception among adolescent women and its associated effects on motivating unprotected sex and reliance to less effective contraception. However, many findings (Meyer et al., 2011) oppose the notion that counseling or prescribing emergency contraception to adolescents is associated with improper use as described in findings from this research.

Provision of emergency contraception information and over-the-counter accessibility is recommended as part of any contraceptive counseling (Hang-Wun et al., 2014). Moreover, following that emergency contraception has been categorized among the 13 life saving commodities (United Nations, 2012); it is important that information is available to adolescents in order to improve their reproductive health. Recent cost-effectiveness data have also pointed out how closing the unmet need for FP among adolescents will revert 6 million unplanned pregnancies annually (Guttmacher Institute, 2016).

Since nurses are trained in family planning methods, such knowledge assumes authority during adolescent contraceptive counseling and is reflected in how they negotiate for appropriate contraceptives. Nurses' medical knowledge assumed an authoritative role within the family planning clinic and maternity ward. However, this knowledge assumes a twofold status where it is held to be correct and suitable for use within the hospital institution and at the same time contested for use outside this realm. This is evident by a saved nurse's narrative of how she did not like to counsel contraceptive use to adolescents outside the hospital setting.

Moreover, nurses still question the reliability of biomedical knowledge on the safety of using modern contraceptives (e.g. secondary infertility). They resort to a different kind of knowledge during counseling where perspectives of medical safety are merged with moral safety. Despite their role as nurses and representatives for the government sanctioned biomedical tradition, they very often utilize local moral knowledge in their counseling and because they have authority through education and position, this knowledge also becomes authoritative in the encounter with adolescent girls.

Trustworthiness

Any qualitative research needs to be judged on the degree of trustworthiness (Bryman, 2008). This section describes techniques used in ensuring that study findings and interpretations are trustworthy. In addition, the checklist on consolidated criteria for reporting qualitative research (COREQ) was adopted as a general guide in enhancing quality of the research process (Tong et al., 2007).

Credibility

Credibility refers to how the researcher accurately reflects the studied social phenomenon as perceived by study informants (Ritchie and Lewis, 2003). The choice to conduct in-depth interviews with nurses and adolescent girls from rural and urban areas was a means to generate multiple perspectives in understanding fertility control among adolescents. Further, repeated interviews enabled deeper exploration of discussion topics which in turn contribute towards comprehensive understanding of informants' experiences and perspectives.

I employed peer review, which involves having an experienced qualitative researcher independently reviewing transcripts and themes (Thomas and Magilvy, 2011), by sending few transcripts and draft writings of the data analysis and findings sections to my supervisor for review. Further, constructive criticisms of these sections were generated from group discussions with colleagues who were also writing up their qualitative thesis reports with a similar research topic. In-depth interviews were triangulated with focus group discussions to generate diverse and detailed perspectives.

Transferability

This refers to how research findings fit into other settings or contexts as determined by the extent to which the inferred context is similar to that of the study (Laura, 1991). The thesis report provides a thick description to enhance transparency by describing and explaining underlying reasons for varied decisions made throughout the study. This includes providing not only detailed descriptive accounts of perceptions and experiences of modern contraception and abortion from both groups of informants but also interpretation of findings through theoretical concepts of social norms and authoritative knowledge. The report allows readers to assess the

degree of similarities of the findings and the inferred context thus, judging transferability to other settings.

Dependability

This has been described to occur when decisions employed throughout the research process can be followed by another researcher (Thomas and Magilvy, 2011). As argued by Guba's 1981 writings (cited in Krefting 1991), dependability entails variations in findings that can be traced to a number of sources namely; informant fatigue, increasing researcher's knowledge of the studied phenomenon and the range of informants' experiences.

If this research is to be replicated, I have provided a detailed description of the methodology including challenges experienced during recruitment and discussions with informants and reflections on my role throughout the research process, to judge the extent to which the findings are dependable. I anticipate such information to be useful to the reader in assessing how such nuances might influence generation of findings that may differ from those stated in this report.

Confirmability

This refers to the extent to which study findings can be corroborated by others(Thomas and Magilvy, 2011). The peer review of the findings, data methods triangulation and thick description of methodology as described earlier, reflect techniques adopted to enhance confirmability of findings. Further, the proceeding section on reflexivity describes in detail reflections of my role in the research process.

Limitations

I experienced a challenge in recruiting girls attending MRRH for PAC services. The original plan in the proposal was to recruit 25 girls from the communities and health facilities that were

providing PAC services while bearing in mind that sample size will be determined by data saturation in the field. The eligibility criteria of not being in school, was perceived to be too narrow by the matron of the maternity wing.

As reported by the matron, they had few experiences of such clients since the majority of the girls were rather studying hence, this meant I was to take longer time than expected to recruit the girls. This was a limitation of restrictive recruitment criteria, limited time available for prolonged recruitment and purposive technique in sampling of informants. Although a resort to snowball sampling would have helped in recruiting the required informants (Norris et al., 2016), I feared that this would have produced informants who were motivated to participate because of reimbursement or they would be told what to narrate by former interviewees. The flexibility of qualitative research was an opportunity to refine the study objectives and recruit nurses as key informants. I thereafter, developed a different interview guide for nurses. The assumption was that; these are people with enormous experiences in adolescent family planning counseling thus, their perceptions and experiences would add depth understanding of the research aim.

The study was limited in its ability to explore first hand experiences of induced abortion. Given that it is a sensitive and controversial topic, it is my impression as discussed earlier that the resort to narrate third person accounts may be a reflection of social desirability bias rather than their lived experience. This might in turn compromise the credibility of my findings however, the accounts of others were still useful in understanding known pregnancy termination practices in the community.

The research did not employ document reviews as a data collection method to enhance triangulation. However, literature review as reflected in the background section and data

generated from in-depth interviews and focus group discussions were able to place the research in context and convey multiple and ambivalent perspectives on adolescent use of contraception.

Although a number of techniques were adopted to ensure trustworthiness of the study, the strategy of member-checking was not involved due to time-constraints in getting back transcript interpretations to informants. I also anticipated that it would be difficult for the girls to comprehend interpretations in English. Generally, theoretical frameworks and concepts other than the ones discussed in this report may also have been suitable in interpreting study findings from varied angles however; the choice of social norms and authoritative knowledge provided understandings of the role of normative models and authority of medical knowledge in adolescent fertility control decision-making and practices.

Conclusion

In this study, I found ambivalence with regards to use of modern contraception among adolescents. The study further showed how notions relating to abstinence, avoidance of illegitimate pregnancies and staying in school; constitute social expectations of adolescent girls in the community. These act to shape decisions over use of contraceptives and practices on termination of unplanned pregnancies.

Although modern contraception implied sexual pleasure without fear of unplanned pregnancy, it is perceived as a reproductive health risk (infertility) and a sign for declining sexual morality by both nurses and girls. Interventions to increase contraceptive usage among adolescents need to consider local norms on adolescent sexuality that shape perspectives and practices on modern contraception and pregnancy termination. These need to be targeted for change so that local conceptions align with the aim of promoting adolescent reproductive health through enhancing acceptability of such interventions.

Further, educational interventions on contraception have to increase awareness of emergency contraceptive pills among adolescents. These have to focus on providing information on proper use, including addressing its accessibility to young women in family planning clinics.

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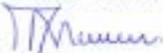
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Appendices

Appendix A: Ethical approval from NatHREC

	THE UNITED REPUBLIC OF TANZANIA	
<p>National Institute for Medical Research 3 Barack Obama Drive P.O. Box 905 11101 Dar es Salaam Tel: 255 22 2121400 Fax: 255 22 2121360 E-mail: headquarters@nimr.or.tz</p> <p>NIMR/HQ/R.8a/Vol. IX/2225</p> <p>Doreen J Parebo NIMR Mbeya Medical Research Centre P.O. Box 2410 MBEYA</p>		<p>Ministry of Health, Community Development Gender, Elderly & Children 6 Samson Machel Avenue P.O. Box 9083 11478 Dar es Salaam Tel: 255 22 2120262-7 Fax: 255 22 2110946</p> <p>20th June 2016</p>
CLEARANCE CERTIFICATE FOR CONDUCTING MEDICAL RESEARCH IN TANZANIA		
<p>This is to certify that the research entitled: <i>Perceptions and Experience of Fertility Control Among Out-of-School Adolescent Girls in Mbeya: Qualitative Study, (Parebo D J et al)</i>, has been granted ethical clearance to be conducted in Tanzania.</p>		
<p>The Principal Investigator of the study must ensure that the following conditions are fulfilled:</p> <ol style="list-style-type: none">1. Progress report is submitted to the Ministry of Health, Community Development, Gender, Elderly & Children and the National Institute for Medical Research, Regional and District Medical Officers after every six months.2. Permission to publish the results is obtained from National Institute for Medical Research.3. Copies of final publications are made available to the Ministry of Health, Community Development, Gender, Elderly & Children and the National Institute for Medical Research.4. Any researcher, who contravenes or fails to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine. NIMR Act No. 23 of 1979, PART III Section 10(2).5. Site: Mbeya Region.		
<p>Approval is for one year: 20th June 2016 to 19th June 2017.</p>		
<p>Name: Dr Mweleclele N Malecela</p> <p>Signature: </p> <p>CHAIRPERSON MEDICAL RESEARCH COORDINATING COMMITTEE</p>		<p>Name: Prof. Muhammad Bakari Kambi</p> <p>Signature: </p> <p>CHIEF MEDICAL OFFICER MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY & CHILDREN</p>
<p>CC: RMO DED DMO</p>		

Appendix B: Informed consent for in-depth interviews (adolescent girls)

Background and purpose

This is a request for you to participate in a research study that intends to generate in-depth knowledge about ideas on abortion and modern contraception among out-of-school adolescent girls in Mbeya. You have been selected to participate because you are an adolescent girl who is out of school due to various reasons and we would like to understand your perceptions and experiences of contraceptive use and practices that are performed to end unplanned pregnancies.

The research is funded by University of Bergen in Norway. It is conducted by a Tanzanian student studying master in international health at the university as a necessary component to attain the degree.

What does the study entail?

We will conduct an in-depth interview in Kiswahili which will take approximately 60 minutes. The discussion will be audio-taped to ensure that we capture all the information we discussed. The audio-recordings will be transported into a laptop and translated to English for analysis. We may wish to contact you for a follow-up interview in order to gain a detailed understanding of particular aspects of the discussion topics as well as for you to check our interpretation of your perceptions and experiences of contraception and practices for terminating unplanned pregnancies.

You will be given 8000 Tsh as a compensation for your time, inconvenience and travel incurred as a result of your participation in the study.

Potential advantages and disadvantages

As a direct benefit for your participation, we will help to direct you to the nearest health facility that provides family planning services if you wish to attend. There are also in-direct benefits to participating in the study. You will help generate information that will add more knowledge on ongoing abortion practices and perceptions of contraceptive use among girls aged 15-19. This information may be used to help design interventions to reduce teenage pregnancies and unsafe abortion practices in Tanzania.

The researcher will ensure that the setting for the interview is private in order to protect privacy of responses generated during the discussion. However, it is also your responsibility not to disclose your responses to other people.

What will happen to the information?

The information that we will record during the interview will only be used in accordance with the purpose of the study as described above. All the information will be analysed without your name or any other directly recognisable type of information. We will use codes to link the information back to you and not your name. Only the researchers and the supervisor (the person

overseeing the student’s research) will have access to the audio-recordings. The audio-recordings will be deleted after completion of the Masters exam. We will ensure that your identity is protected and that it will not be possible to identify you in the results of the study. The researcher will contact you when study findings become available.

Voluntary participation

Participation in the study is voluntary. You can withdraw your consent to participate in the study at any time and without stating any particular reason. You will not be subjected to any consequences. If you wish to participate, you are requested to read this informed consent form, sign and date on the final page to show your approval to participate. You will be given a copy of this consent form for you to keep.

If you agree to participate at this time, you may later on withdraw your consent without any consequences attached. If you later on wish to withdraw your consent or have questions concerning the study, you may contact Doreen Pamba at +255 717 339057 or +47 91261240.

Consent for participation in the study

I am willing to participate in the study.

(Signature and date of informant / informant thumbprint)

Informant code

Witness consent (if applicable)

(Signature and date of witness / witness thumbprint)

I confirm that I have given information about the study.

(Signature and role in the study)

Date

Appendix C: Informed consent for in-depth interviews (nurses)

Background and purpose

This is a request for you to participate in a research study that intends to generate in-depth knowledge about ideas on abortion and modern contraception among out-of-school adolescent girls in Mbeya. You have been selected to participate because you are a nurse who is experienced in providing contraceptive counselling to adolescent girls aged 15-19. I would like to understand your experiences and perceptions of adolescent contraceptive counselling as well as practices they perform to end unplanned pregnancies.

The research is funded by University of Bergen in Norway. It is conducted by a Tanzanian student studying master in international health at the university as a necessary component to attain the degree.

What does the study entail?

We will conduct an in-depth interview in Kiswahili which will take approximately 60 minutes. The discussion will be audio-taped to ensure that we capture all the information we discussed. The audio-recordings will be transported into a laptop and translated to English for analysis. We may wish to contact you for a follow-up interview in order to gain a detailed understanding of particular aspects of the discussion topics as well as for you to check our interpretation of your perceptions and experiences of contraception and practices for terminating unplanned pregnancies.

You will be given 8000 Tsh as a compensation for your time, inconvenience and travel incurred as a result of your participation in the study.

Potential advantages and disadvantages

There are in-direct benefits to participating in the study. You will help generate information that will add more knowledge on ongoing abortion practices and perceptions of contraceptive use among girls aged 15-19. This information may be used to help design interventions to reduce teenage pregnancies and unsafe abortion practices in Tanzania.

The researcher will ensure that the setting for the interview is private in order to protect privacy of responses generated during the discussion. However, it is also your responsibility not to disclose your responses to other people.

What will happen to the information?

The information that we will record during the interview will only be used in accordance with the purpose of the study as described above. All the information will be analysed without your name or any other directly recognisable type of information. We will use codes to link the information back to you and not your name. Only the researchers and the supervisor (the person

overseeing the student’s research) will have access to the audio-recordings. The audio-recordings will be deleted after completion of the Masters exam. We will ensure that your identity is protected and that it will not be possible to identify you in the results of the study. The researcher will contact you when study findings become available.

Voluntary participation

Participation in the study is voluntary. You can withdraw your consent to participate in the study at any time and without stating any particular reason. You will not be subjected to any consequences. If you wish to participate, you are requested to read this informed consent form, sign and date on the final page to show your approval to participate. You will be given a copy of this consent form for you to keep.

If you agree to participate at this time, you may later on withdraw your consent without any consequences attached. If you later on wish to withdraw your consent or have questions concerning the study, you may contact Doreen Pamba at +255 717 339057 or +47 91261240.

Consent for participation in the study

I am willing to participate in the study.

(Signature and date of informant / informant thumbprint) Informant code

Witness consent (if applicable)

(Signature and date of witness / witness thumbprint)

I confirm that I have given information about the study.

(Signature and role in the study) Date

Appendix D: Informed consent for focus group discussion

FGD Code: _____

Background and purpose

This is a request for you to participate in a research study that intends to generate in-depth knowledge about ideas on abortion and modern contraception among out-of-school adolescent girls in Mbeya. You have been selected to participate because you are an adolescent girl who is out of school due to various reasons and we would like to understand your perceptions and experiences of contraception use and practices that community members perform to end unplanned pregnancies.

The research is funded by University of Bergen in Norway. It is conducted by a Tanzanian student studying master in international health at the university as a necessary component to attain the degree.

What does the study entail?

We will conduct a focus group discussion of 6-8 participants in Kiswahili which will take approximately 2 hours. You will be assigned to a number which will be used to identify you during the discussion. We will not use your name or other participants' names. The discussion will be audio-taped to ensure that we capture all the information we discussed. There are no wrong or right answers to the discussion topics, we only aim to understand your perceptions and experiences of contraception and abortion. The audio-recordings will be transported into a laptop and translated to English for analysis. You will be given 8000 Tsh as a compensation for your time, inconvenience and travel incurred as a result of your participation in the study.

Potential advantages and disadvantages

As a direct benefit for your participation, we will help to direct you to the nearest health facility that provides family planning services if you wish to attend. There are also in-direct benefits to participating in the study. You will help generate information that will add more knowledge on ongoing abortion practices and perceptions of contraception use among girls aged 15-19. This information may be used to help design interventions to reduce teenage pregnancies and unsafe abortion practices in Tanzania.

The researcher will ensure that the setting for the discussion is private in order to protect privacy of responses generated during the discussion however; absolute confidentiality cannot be guaranteed as there are limitations to confidentiality in focus group discussions. Other participants may disclose the information shared during the discussion to others. We will stress at the beginning and end of the focus group discussion that the information shared remains private.

What will happen to the information?

The information that we will record during the interview will only be used in accordance with the purpose of the study as described above. All the information will be analysed without your name or any other directly recognisable type of information. We will use codes to link the information back to you and not your name. Only the researchers and the supervisor (the person overseeing the student’s research) will have access to the audio-recordings. The audio-recordings will be deleted after completion of Masters exam. We will ensure that your identity is protected and that it will not be possible to identify you in the results of the study. The researcher will contact you when study findings become available.

Voluntary participation

Participation in the study is voluntary. You can withdraw your consent to participate in the study at any time and without stating any particular reason. You will not be subjected to any consequences. If you wish to participate, you are requested to read this informed consent form, sign and date on the final page to show your approval to participate. You will be given a copy of this consent form for you to keep.

If you agree to participate at this time, you may later on withdraw your consent when the discussion is in progress without any consequences attached. If you later on wish to withdraw your consent or have questions concerning the study, you may contact Doreen Pamba at +255 717 339057 or +47 91261240.

Consent for participation in the study

I am willing to participate in the study.

(Signature and date of informant / informant thumbprint)

Participant code

Witness consent (if applicable)

(Signature and date of witness / witness thumbprint)

I confirm that I have given information about the study.

(Signature and role in the study)

Date

Appendix E: In-depth interview guide (adolescent girls)

Interview location:

Date:

Interview code:

Introductory paragraph

Thank you for consenting to participate in this in-depth interview today. My name is, I am currently a master student at university of Bergen in Norway, studying international health. As described in the informed consent form, we will discuss topics around modern contraception and abortion. I would like to understand your perceptions and experiences around these topics. There are no wrong or right answers, nor will I judge your account. Please talk freely. The interview will take about 60 minutes. I will be taking some notes but I will also ask to audio-record our discussion to ensure that I do not miss any of the conversations. Please speak up so that the recorder is able to pick up your responses. You are free to withdraw your consent at anytime during the interview or stop responding to questions that you may feel uncomfortable with.

Our discussion will be completely confidential. It is only my supervisor (the person at the University of Bergen who oversees my research), my research assistant and I who will have access to your audio-recordings.

Do you have any questions about what I have just explained?

Are you willing to continue to the discussion topics?

A: General information

1. I would like to understand a little about your background.

age, residence, household members, religion, education level, last year of schooling, ethnicity, income generating activity and relationship status (# of partners and duration), sexual initiation,

2. What do you understand about menstruation?

Probe:

- first menarche,
- fertile days in the menstrual cycle,
- How did you learn about menstruation?
- Who do you talk to about sexuality? (friends, significant others)

B: Myths and conceptions of modern contraception

1. What do you understand about modern contraception?

Probe:

- reason for using contraception,
- types, proper use for each method,
- Accessibility, who are contraceptives suited for? (marital status, age, parity)

2. What do your friends say about contraception?

Probe:

- reason for using, types, proper use for each method,
- accessibility, other community members, significant others (parents, relatives/ household members)

3. How do you obtain information on contraception?

Probe:

- sources of information (school, family, peers, mass media, health facilities), how does the information vary among different sources,
- reason for health seeking behavior, awareness of nearby health facilities, awareness of adolescent sexual and reproductive rights

4. What are the side effects of using modern contraception to prevent pregnancy?

Probe:

- explore side effects for each of the fertility methods mentioned by the informant,
- explore beliefs and reasons behind perceived side effects,
- explore if perceived side effects are linked to age, marital status, ethnicity or socio-economic status,
- explore opinions of friends and significant others
- real life examples if any

5. How do you prevent from becoming pregnant?

Probe:

- types and reason for choice of methods, age of first use of contraception,
- reason for change in methods, pattern of use,
- who was consulted in decision-making,
- cost incurred, access to contraception
- side effects, perceived reason for side effect (age at first use, supernatural belief)

C: Awareness and perceptions of emergency contraceptive pills

1. What can a girl do to prevent pregnancy after having sex during fertile days of her menstrual cycle?

Probe:

- traditional and modern means,
- opinions of friends and significant others
- use of emergency contraception

2. What do you understand about emergency contraceptive pills?

Probe:

- reason for use, appropriate time for taking them, situations to use them,
- source of information,
- opinions and discussions with friends and significant others

3. What are the side effects of using emergency contraceptive pills?

Probe:

- perceived reason for side effect,
- specific side effects for teenagers, association with marital status, parity, age

4. How effective are emergency contraceptive pills at preventing pregnancy?

Probe:

- explore underlying reasons, situations that they are not effective,
- personal experience of use,
- opinions of friends and significant others,

5. What kind of experience do you have of using emergency contraceptive pills?

Probe:

- reason for use, accessibility, cost, side effects,
- how did she use it, frequency of use,

D: Perceptions and experiences of abortion

1. What are the different ways that a girl in your neighborhood can do to end an unplanned pregnancy?

Probe:

- How where you informed of these methods?
- Are there side effects for each method?
- Experiences of friends or adolescent girls in their neighborhood,

- opinions of community members

2. Would you please tell me what does unsafe abortion mean?

Probe:

- what makes it unsafe? Reason for unsafe abortion,
- health consequences of unsafe abortion, source of information,
- opinions of friends and significant others,
- knowledge of girls who did unsafe abortion

3. What do you understand about safe abortion?

Probe:

- what makes it safe?
- how can you access safe abortion? Source of information,
- opinions of friends and significant others,
- knowledge of girls who did safe abortion

I would now like to talk about your experience of unintended pregnancy

4. Have you ever had an unplanned pregnancy?

Probe: has it happened more than once? Is it the same partner? Whom did you disclose to? Contraception use

5. How did you feel and what did you do after knowing that you were pregnant?

Probe: whom did they disclose to, plans of carrying the pregnancy to term, what happened to the pregnancy?

6. Did you have thoughts of ending the pregnancy?

Probe:

- reason for termination
- different options for termination (health facility),
- perceived safety of each method,
- How did you end your pregnancy? reason for choice of abortion technique,
- Who was consulted for decision-making?
- Perceived safety, complications experienced

Concluding remarks

Is there anything important that I forgot to ask?

Thank you for your time!

Respond to questions asked during the discussion

Reassurance of confidentiality

Appendix F: Guide for repeated in-depth interviews (adolescent girls)

Interview location:

Date:

Interview code:

Family and personal aspirations

- What number are you in the order of birth?
- How many siblings do you have?
- Who do you live with? How do your parents live? Together or apart?
- reasons for failing to continue with school
- What are her dreams? Who is willing to support her to attain her dreams?
- What challenges does she anticipate in attaining her dreams?

Religion

- How often do you go to church/mosque?
- What do your religious teachings say about marriage, contraception and sexual relationships among adolescents?
- Do your religious beliefs conflict with the use of modern contraception?
- Do you think adolescents agree to religious teachings about marriage, contraception?

Socialization

- What do your parents say about marriage, contraception and sexual relationships among youth?
- Is it acceptable to talk to your parents, grannies or siblings about contraception? (When is it acceptable to talk about it?)
 - Do you talk anything related to relationships? Why?
 - When is it acceptable to talk about it?
- What will happen if you decide to talk to your mom, brother, father, aunt about your boyfriend?
 - About the use of contraception?
 - Appropriate age to have a boyfriend?
 - What will happen if your parents knew about your relationship with your boyfriend?

Peer groups

- What are their aspirations with regards to marriage, relationships, future life?
- What do you usually talk about with your friends?

Boyfriend

- Do many of your friends have boyfriends?
 - At what age?
 - What do your friends say about having a boyfriend?
 - Is it something you have to engage in to be accepted by your peer groups?
- How many boyfriends have you had?
- Who is informed about the relationship?
- Can you please tell me about how you met your boyfriend?
 - How old is he?
 - How long have they been together, how did they meet?
 - What are individual aspirations? And aspirations as a couple?
 - Who knows about their relationship? Parents? Guardians? Siblings? Friends?
- What do they usually do and what do they usually talk about?
 - How does he perceive use of contraception?
 - Do you have pressure to engage in sex? To use contraception?

Emergency contraceptive pills

- Is it important to be able to use a contraceptive pill that may prevent you from becoming pregnant after having sex during fertile days? Why?
- Do you feel that there might be side effects of using it?
- Were would you be free to access it? Health facilities, drug shops, friends?

Abortion

- Is abortion something that you may talk about with your family, friends, aunt? Why?
- What do religious teachings say about abortion?
- Is safe or unsafe abortion something that you would talk about with your family?
- What will happen in case you aborted and your parents knew about it?
 - What will the community say?
 - What will people from religious leaders say?

Appendix G: In-depth interview guide (nurses)

Interview location:

Date:

Interview code:

A: general information

1. I would like to briefly understand about your history
 - educational level, age, religion
 - experience with adolescent contraceptive counseling
 - department of work
 - How often do you counsel adolescents on contraceptive use?

B: experience with adolescent contraceptive counseling

2. Please tell me about the adolescents who come for contraceptive counseling.
 - gender
 - educational level, schooling status (in-school or out-of-school)
 - relationship status
 - number of partners, sexual debut
 - What do they say about their relationship?
 - reasons for coming to seek contraceptive counseling
 - experience of using modern contraception
3. Please tell me about your typical day on counseling contraceptive use to an adolescent
 - What do you usually talk about?
 - What is their experience of contraceptive use?
 - Do they disclose use of contraception to significant others? parents, relatives, siblings, close friends
 - What do they fear or worry about related to contraceptive use?
 - What questions do they frequently ask?
4. What types of contraceptive methods are available here?
 - Are there contraceptives that are only suitable for adolescents?
 - Are there contraceptive stockouts? How do you handle such situations?
5. Are there any conflicts between your religious beliefs or teachings and adolescent use of contraception?
 - What does your religion say about contraceptive use for adolescents?
 - What is your opinion on adolescent use of contraception?

6. What do adolescents say about the use of modern contraception?
 - What do they perceive to be side effects associated to modern contraceptive use?
 - How do they learn such conceptions on contraceptives?
7. What challenges do you experience when working with adolescent contraceptive counseling?
 - What do you think will help resolve these challenges?

The use of emergency contraceptive pills among adolescent girls

8. What experience do adolescent clients have on using emergency contraceptive pills?
 - How do they use them?
 - Are the pills successful in preventing pregnancy?
 - Are there any reported side effects?
9. Are emergency contraceptive pills appropriate for use among adolescent girls aged 15-19?
 - Are the pills available in this hospital?
 - Do you counsel adolescents on its use?
 - Why are they appropriate or inappropriate for use during adolescence?

C: clandestine abortion practices

10. Do you receive adolescent clients who have induced abortion complications?
 - How did they induce the abortion?
 - What complications do they have?
 - what services do you provide for such complications?
11. What strategies are reported by adolescent clients in performing clandestine abortions?
 - probe for medical and traditional means for abortion
 - How willing are they to disclose the information?
 - do you take legal measures against adolescent acts to induce abortions?
12. Is there anything else that you think is important for us to discuss about this topic?

Concluding remarks

Thank you for your time!

Respond to questions asked during the discussion

Reassurance of confidentiality

Appendix H: Topic guide for focus group discussion (adolescent girls)

FGD location:

Date:

FGD code:

Introductory paragraph

Thank you for consenting to participate in this focus group discussion. Our names are [.....state names of facilitator and note taker]. I am currently a master student at university of Bergen in Norway, studying international health. As described in the informed consent form, we will discuss topics around modern contraception and abortion. We would like to understand perceptions and experiences of each person about these topics. We also like this to be a group discussion for everyone to talk to each other rather than only responding to us. There are no wrong or right answers only different viewpoints, please talk freely to each other regardless of whether you agree or disagree with what has been said. We will not judge your understanding.

The discussion will take about 2 hours. [...state name of research assistant] will be taking some notes and I will be facilitating the discussion. We will also audio-record the discussion to ensure that we do not miss any of the comments we have discussed. Please speak up so that the recorder is able to pick up your responses. You are free to withdraw your consent at anytime during the interview or stop responding to questions that you may feel uncomfortable with. Our discussion will be completely confidential and we ask that all of us do not disclose any of the information to people outside this group. Please respect each other's confidentiality. It is only my supervisor (the person at university of Bergen who oversees my research), my research assistant and I who will have access to your audio-recordings.

Do you have any questions about what I have just explained?

Are you willing to continue to the discussion topics?

Ground rules

Formulate ground rules together with the participants

- Active group discussion, not necessarily to have consensus, confidentiality,

Ask if they have participated in an FGD before, give general information of FDG

Turn on digital audio recorder

Discussion topics

A: Myths and conceptions of modern contraception

1. What do you understand about modern contraception?

Probe:

- reason for using contraception,
- types, proper use for each method,
- Accessibility, who are contraceptives suited for? (marital status, age, parity)
- What do your friends say about contraception?

2. How do you obtain information on contraception?

Probe:

- sources of information (school, family, peers, mass media, health facilities), how does the information vary among different sources,
- reason for health seeking behavior, awareness of nearby health facilities, awareness of adolescent sexual and reproductive rights

3. Are there side effects of using modern contraception to prevent pregnancy?

Probe:

- explore side effects for each of the fertility methods mentioned by the participant,
- explore beliefs and reasons behind perceived side effects,
- explore if perceived side effects are linked to age, marital status, ethnicity or socio-economic status,
- explore opinions of friends and significant others
- personal experiences of side effects

B: Awareness and perceptions of emergency contraceptive pills

1. **Vignette:** let us assume a situation where a girl of 16 years had sexual intercourse and the condom broke without her noticing it. The girl was in her fertile days of the menstrual cycle and there is a high possibility that she might be pregnant. She is still in school and has no plans of being a mother anytime soon. Her boyfriend is also not ready to father a baby. What should she do?

Probe:

- Keeping or terminating the pregnancy
- traditional and modern means

- sources of information
- reasons for different options

2. What do you understand about emergency contraceptive pills?

Probe:

- reason for use, appropriate time for taking them, situations to use them,
- source of information, accessibility
- side effects, perceived reason for side effects
- association with marital status, parity, age
- opinions and discussions with friends and significant others

3. Are emergency contraceptive pills successful at preventing pregnancy?

Probe:

- explore underlying reasons, situations that they are not effective,

C: Perceptions and experiences of abortion

1. **Vignette:** Let us assume that a girl aged 17 years has a boyfriend and the two of them have talked about marriage several times. Her boyfriend has promised to marry her after she completes her school. She decided to take a pregnancy test after missing her period and she found out that she was pregnant. Upon consulting her boyfriend, he denied responsibility of the pregnancy and said he is not ready for marriage or father a child. The girl plans to terminate the pregnancy so that she can hide the shame from her parents and the community. She is your friend, how would you advise her?

Probe:

- Why that option?
- How where you informed of these methods?
- Are there side effects for each method?
- opinions of community members

2. What does unsafe abortion mean?

Probe:

- What makes it unsafe? Reason for unsafe abortion,
- health consequences of unsafe abortion, source of information,
- opinions of friends and significant others,
- knowledge of girls who did unsafe abortion
- community practices of unsafe abortion

3. What do you understand about safe abortion?

Probe:

- what makes it safe?
- how can you access safe abortion? Source of information,
- opinions of friends and significant others,
- knowledge of girls who did safe abortion

D: General information

Please fill in the requested information about your background in the sheet provided to you (see final page)

Concluding remarks

Is there anything important that I forgot to ask?

Summarize key points in the discussion

Thank you for your time!

Respond to questions asked during the discussion

Reassurance of confidentiality

FGD Demographic information sheet

FGD Code:.....

Please fill in the information requested below

1	Age	
2	Residence	
3	Religion	
4	Ethnicity	
5	Education level	
6	Last year of School	
7	Income generating activity	
8	Relationship status	

Appendix I: Code list

1. abortion as criminal
2. access to contraception
3. adolescent ignorance of ECPs
4. adolescent sex and marriage values inherent in society
5. adolescent sexual relations
6. adolescent worries over use of FP
7. age range of girls attending FP services
8. availability of contraceptive methods
9. complications from induced abortion
10. concept of blessed adulthood
11. conflicting feelings of religious beliefs and FP use
12. contraception experience
13. contraceptive preferences
14. contraceptive talks
15. decision-making reasoning for FP preferences
16. decisions around disclosure on contraception use
17. demographics
18. difficulties in comprehending FP
19. dilemma in use of FP
20. ECP as unsuitable for adolescents
21. educational level of nurses
22. educational values embedded in larger society
23. eligibility for contraceptive use
24. empathy and pity for adolescent girls using FP
25. essence of FP myths among adolescents
26. experiences of ECP
27. facility experiences of contraceptive stockouts
28. fear of being labeled promiscuous
29. fear of STI
30. feelings of inability to relieve clients from FP side effects
31. FP as a strategy to lengthen maturity
32. FP training challenges
33. girls frequency in attending FP services
34. handling unplanned pregnancy
35. health staff perceived effects of FP
36. income as pull factor for unsafe abortion
37. induced abortion practices
38. infrastructural challenges for FP counseling
39. learning about contraception
40. medical abortion practices
41. medical knowledge as pull factor for safe abortion
42. need for child spacing
43. need for strengthening educational FP programs
44. nurse-client power relations during FP counseling

45. nurses' first impressions of adolescent girls
46. overcoming FP challenges
47. parent's knowledge of their child's pregnancy/abortion
48. parental support for abortion
49. parental support for FP
50. parents as barriers for contraceptive use
51. perceived current trends of declining morality
52. perceived safety of medical abortion
53. perceived safety of traditional induced abortion
54. personal knowledge of menstruation
55. role of doctors in decisions about contraception
56. role of nurses in decisions about contraception
57. role of significant others in decisions about contraception
58. schooling status of girls seeking FP services
59. secrecy of abortion practices
60. sexual intercourse experiences
61. sexuality talks
62. The FP counseling process
63. the need for contraceptives with less health effects
64. time as a challenge for adolescent FP counseling
65. traditional abortion practices
66. types of contraceptives
67. unsafe sex, belief of insusceptibility to pregnancy
68. uses for contraception
69. Withholding information about ECP
70. withholding PAC services
71. work experience
72. youth contraceptive rights