FACTORS INFLUENCING ACCESS AND UTILIZATION OF MODERN CONTRACEPTION AMONG ADOLESCENT GIRLS IN KENYA

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Factors Influencing Access and Utilization of Modern Contraception Among Adolescent Girls in Kenya

A thesis submitted in partial fulfilment of the requirement for the degree of Master of Science in Public Health

By
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Declaration:

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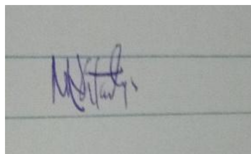
Signature: 

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Table of contents

Abstract 8
Background 8
Methods 8
Results 8
Chapter one: Introduction 9
1.1 Introduction 9
1.2. Geography 10
Figure 1: Map of Kenya 10
1.2.2 Economy 10
1.2.3 Demography 11
Figure 2: Kenya's population pyramid by age and sex 11
Figure 3: Trends in Contraceptive Prevalence Rate, unmet need for family planning, and other selected indicators 12
1.2.4 Kenya's Health system 12
2.0 Chapter two: Problem statement, justification and objectives 13
2.1 Problem statement 13
2.2 Justification 15
2.3 Goal 16
2.3.1 Specific Objectives 16
3.0 Chapter three: Methodology 16
3.1 Research method 16
Table 1: Search table 17
3.1 Inclusion and exclusion criteria 18
3.2 Exclusion criteria 18
3.3 Framework 18
3.3 Limitations of the study 19
Figure 4: Levesque conceptual framework of access to health services 19
4.0 Chapter four: Results 20
4.1 Individual, population, and health system factors influencing uptake of contraceptives among adolescent girls 20
4.1.1 Health care needs 20
4.1.1.2 Approachability 23

4.1.2 Perception of needs and desire for care 23
4.1.3 Acceptability of health services 27
4.1.5 Healthcare consequences 30
4.2 Existing policies on adolescent contraception and sexual reproductive health services in Kenya 32
4.3 Evidence-based strategies and interventions that have improved access and utilization of contraception among adolescent 34
5.0 CHAPTER FIVE: DISCUSSION 41
5.1 Ability to perceive, seek and engage with health services 41
5.2 Organizing health care systems and healthcare worker's attitudes 41
6.0 CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS 43
6.1 Conclusion 43
6.2 Recommendations 44
References 46

List of figures

Figure1: Map of Kenya ……………………………………………………………………..9
Figure 2: Kenya's population pyramid ………………………………………………….....10
Figure 3: Trends in contraceptive prevalence rate, unmet need for family planning and other selected indicators…...11
Figure 4: Levesque conceptual framework of access to health service………………....16

Abbreviations

APHRC	African Population and Health Research Center
ASRH	Adolescent Sexual Reproductive Health
CSE	Comprehensive Sexuality Education
CSOs	Civil Society Organizations
DFID	Department for International Development
DRC	Democratic Republic of the Congo
DRH	Division of Reproductive Health
FCDO	Foreign, Commonwealth, and Development Office
FGM/C	Female Genital Mutilation/Cutting
FP	Family Planning
HCP/Ws	Health Care Providers/Workers
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
KDHS	Kenya Demographic Health Survey
LARC	Long-acting reversible contraception
LMICs	Low- and middle- income countries
NCPD	National Council for Population and Development
NGO	Non-Governmental Organizations
NRHP	National Reproductive Health Policy
MMR	Maternal Mortality Rate
MOH	Ministry Of Health
MSAS	Malawi Schooling and Adolescent Study
RH	Reproductive Health
SDG	Sustainable Development Goals
SRH	Sexual Reproductive Health
TWG	Technical Working Group
UHC	Universal Health Coverage
UNFPA	United Nations Population Fund

UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
VU	Vrije Universities
WHO	World Health Organization
YFS	Youth Friendly Services

Glossary of terms and definitions

Access is defined as the opportunity to identify, seek, reach, obtain, or use healthcare and to fulfill the needs for these services (Levesque et al., 2013).

Adolescence is the phase between childhood and adulthood, characterized by biological and social role transition. It is the age between 10-24 years(WHO, 2021).This research work will focus on adolescents aged 15-19.

Adolescent Fertility Rate (AFR) _"The number of births per 1,000 girls aged 15-19''.

Contraceptive Prevalence Rate (%)_'' The percentage of women aged 15-49 years, married or in-union, who are currently using, or whose sexual partner is using, at least one modern method of contraception''.

Family planning _'' Family planning is the ability of individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births''.

Gender equality is "the extent to which women and men have an equal share of paid work, money- and decision-making power in society''.

Maternal Mortality Ratio (MMR) _'' The number of maternal deaths during a given period per 100,000 live births during the same period''.

Universal Health Coverage (UHC) _ "UHC is ensuring that all people have access to needed health services (including prevention, promotion, treatment, rehabilitation, and palliation) of sufficient quality to be effective while also ensuring that the use of these services does not expose the user to financial hardship''.

Unmet need for contraception_ is defined as being sexually active, not wanting a child for at least two years, or wanting to stop childbearing but not using a contraceptive method

Unsafe abortion _ A procedure for terminating a pregnancy, carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards or both''

Abstract

Background Adolescence is a challenging transition characterized by numerous physiological changes and an increased risk of poor reproductive health outcomes. Globally, an estimated 21 million pregnancies occur among adolescents aged 15-19, out of which 50% are unintended. About two-thirds of adolescents have an unmet need for contraception. Sub-Sahara Africa hosts a more significant proportion of these pregnancies, estimated at 14 million annually. In Kenya, 18% of adolescent women begin childbearing before age 18, heightening the risk of maternal and birth complications and unsafe abortions. Adolescents face challenges in navigating health systems and in accessing contraception.

Methods this is a literature review study

Results Adolescents lack adequate sexuality education**,** influenced by community norms, shaming and labeling sex dialogue with parents and caregivers as taboo. Consequently, this heightens adolescent vulnerability to experience poor sexual reproductive health outcomes. In addition, health literacy, lack of information and adherence to contraceptives, myths and misconceptions, fear of side effects, peer influence, and spousal control reduce the autonomy and empowerment of adolescent's girls in making their individual health decisions. The stigmatizing nature of health care workers, and lack of commodities are health system factors deterring contraceptive uptake for adolescents.

Conclusion Community social stigma, healthcare workers' attitudes, and reduced health literacy about contraception are substantial factors leading to the unmet adolescent contraceptive needs. Addressing the lack and reduced access/utilization of contraception for young women will push the country towards attaining sustainable development.

Key words Adolescents, contraceptives, Kenya**,** Sub-Sahara Africa

Word count 241

Chapter one: Introduction

1.1 Introduction

Historically, contraception was viewed as an approach to population control. However, there have been global efforts since 1994 and a shift incorporating contraception as a sexual and reproductive health right during the United Nations International Conference on Population Development (ICPD) in Cairo at the Fourth World Conference on Women in Beijing held in 1995. These two conferences were advancing action for equality, women's development, and seeking to understand the social determinants of women's health. Empowering women is necessary for social development. Besides, it is a reinforcement made in the Cairo conference to revitalize contraceptive provision and use, pinned in the global initiatives and Sustainable Development Goals indicator 3.7.1. That ensures that all women of reproductive age 15-49 years have their need for family planning satisfied with contraceptive use (Slaymaker *et al.*, 2020).

In 2012, 69 member states came together at the London Summit to advance the commitments of ICPD 94'. Family planning programming was losing momentum globally, reducing donor funding and shifting focus to other emerging public health issues such as malaria and Human Immunodeficiency Virus (HIV) epidemic. As a result, the FP 2020 approach has been geared toward advancing rights-based programming for family planning. The FP2020 had a goal to enable an additional 120 million girls. Women attain the right and freedom to determine if, when, and how often they have children by ensuring quality access to sexual and reproductive health services. These global agreements recognize the need to focus on understanding and meetings the needs of adolescents and young people and ensuring that countries uphold their leadership and governance roles and demonstrate accountability in measuring how these programs are run and services delivered (KNBS, 2019).

Despite the advancements achieved by countries, increasing the number of women using modern contraceptives, the number of women who have a demand for a modern contraceptive is growing, increasing the number of women in need of a modern contraceptive but are not using a method (Slaymaker *et al.*, 2020).As a result, unintended pregnancies resulting from unmet contraception needs remain a threat to many women and their families globally, especially in low-income countries. In addition, social and

demographic characteristics of women such as lower education, being married to partners with lower education, and unmarried and rural residents have been linked to lower contraception utilization(UNDP, 2020)

1.2. Geography

Kenya is a country in East Africa that covers 582.650 km2 (224,960 sq. mi) area and borders Ethiopia to the North, Tanzania to the south, Somalia to the East, Uganda to the west, and Sudan to the North West as shown in Figure 1 below By 2019, Kenya's Human Development Index (HDI) was 0.601, according to the United Nations Development Plan(UNDP, 2020).

Figure 1: Map of Kenya

Source: Kenya Demographic and Health Survey (Yonga et al., 2014)

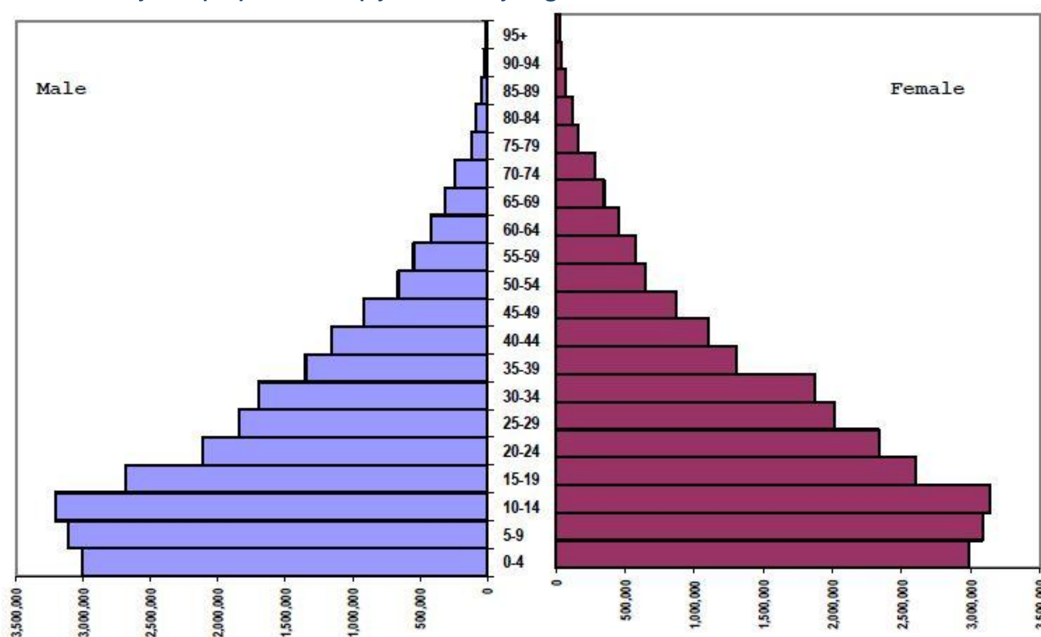
1.2.2 Economy

The economy of Kenya is primarily agricultural and has a large industrial sector. There is a substantial private-sector consumption and growth in capital investment. Wholesale and retail trade, agriculture, education, and the insurance industry are significant drivers of the economy (Yonga et al., 2014).

1.2.3 Demography

Kenya has a population of 47.6 million according to the 2019 census, with most of the population being youth, as shown in Figure 2 below. By geographical residence, 68.9% (32,732,596) Kenyans live in rural areas, and 31.1. % (14,831,700) population residing in urban areas. The median age of Kenya's population is 20.1 years(Census, 2019)**.**

Figure 2: Kenya's population pyramid by age and sex



Source, Kenya National Bureau of Statistics (Census, 2019)

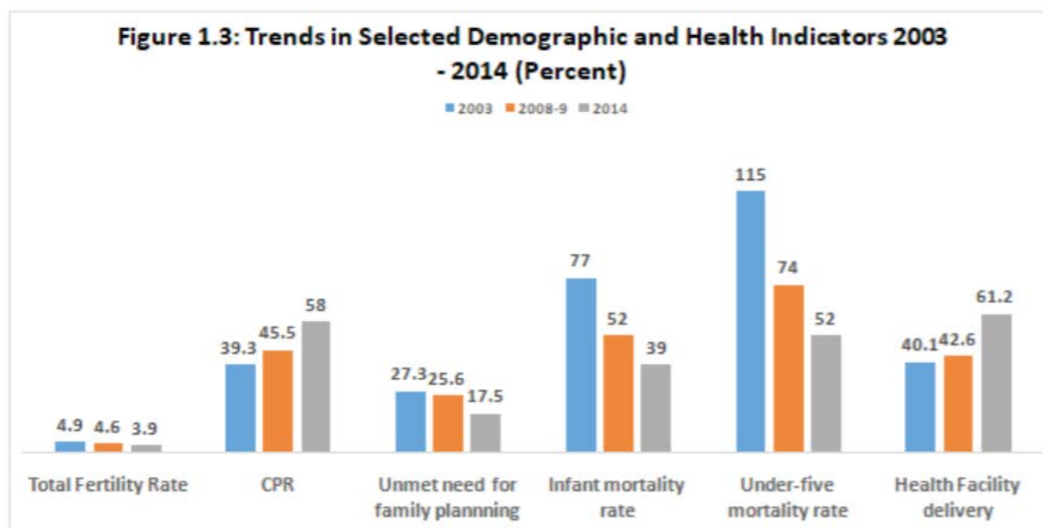
Contraceptive prevalence rate and unmet contraceptive need in Kenya

There has been a decline in the Total Fertility Rate (TFR) to 3.9 in 2014 from 4.6 and 4.9 children born per woman in 2008/09 and 2003, respectively. However, women residing in rural areas have one child more born per woman when compared to women living in urban areas. In addition, existing inequities in health remain a prerequisite for poor reproductive health outcomes, varying differences in fertility rates per region, lower contraceptive use, and higher unmet needs for contraception(Fotso *et al.*, 2013)

In Kenya, contraceptive services are provided mainly by government facilities (60%), while 34% of women access contraceptives from the private sector. Out of 60% of public sector provision, nearly half of the services are offered at the primary health care level,

16% and 20% from health centers and dispensaries, respectively. The remaining one-third access FP from hospitals ((Chuma, Maina and Ataguba, 2012); Yonga et al., 2014). Though contraceptive services are cheaper in government facilities, adolescents perceive services as poor due to adverse health workers' attitudes.

Figure 3: Trends in Contraceptive Prevalence Rate, unmet need for family planning, and other selected indicators



Source: National Council for Population and Development (UNFPA, 2021)

Kenya has made substantial efforts in FP provision, and there has been an increasing trend in the number of women using FP. In 2014, the country had a national contraceptive prevalence rate of 58%, an increase from 53% and 32% in the demographic surveys of 2008/09 and 2003, respectively, as shown in Figure 3 above. Increasing contraceptive prevalence has decreased all childhood mortalities [infant, U-5 under-five mortality rates]. However, 18% of currently married Kenyan women would still like to delay or stop childbearing but have their contraceptive needs not met (Yonga et al., 2014).

1.2.4 Kenya's Health system

The county government is responsible for the Kenya health system's authority and decision-making, allocating resources, planning and management of public services and governance(MoH, 2017). Since 2010 and the publicizing of the new constitution, the coordination of health activities remains at the national government but with authority and

decision making the responsibility of county government (47 county governments). Kenya has a pluralistic health system operated by the public and private sectors. The government provides most health services in 54.7% of health facilities, followed by the private sector, 34.3%, and 14% of the not-for-profit sector (Chelagat *et al.*, 2021)

The system is organized into six levels. Prevention services are provided at the community level, level one, rendered by community health volunteers (CHVs) under community health extension workers (CHEWs); both CHVs and CHEWs constitute community health units. The second and third levels are primary health care services composed of Dispensaries and Health Centers. Treatment of minor illnesses and referral services are provided at this level by two trained cadres (community nurses), mainly nurses and clinical officers. Levels four and five constitute the Sub- County, County referral, regional hospitals, and service provision by specialist doctors, nurses, and clinical officers. Medical treatment, surgeries, and rehabilitative services are provided at these levels. Teaching services for students, practical attachment, and medical doctors doing the elective term are attached to level five hospitals and a few levels four that serve as training institutes. At level six, the highest organized institution in Kenya's health system is the National Teaching and Referral hospitals (MoH, 2017)

2.0 Chapter two: Problem statement, justification and objectives

2.1 Problem statement

Unintended pregnancies is a major global concern, often arising from low uptake of contraception. According to a study conducted by World Health Organization (WHO), one in every 4 pregnancies are unintended. Low- and middle-income countries (LMICs) account for 74 million global unintended pregnancies annually (WHO, 2019). At least 14% of these pregnancies occur among adolescent girls age 15-19 (WHO, 2020). World Health Organization depicts that an estimated 21 million pregnancies occur among adolescent girls aged 15-19 yearly (Wado, Sully and Mumah, 2019),(WHO, 2020). Furthermore, an estimated 20,000 girls below 18 years of age give birth every day globally. Half of these are unplanned(Jacqueline E. Darroch, Woog and Bankole, 2016). In the developing regions, approximately 12 million adolescent girls give birth every year

(WHO, 2020). Unintended pregnancy doesn't equate to the pregnancy being unwanted, however, there are a numerous social and economic, and health related challenges that could occur((WHO, 2019). Health complications during pregnancy and child birth are some of the causes of high mortality in 15-19 year old girls in the world(Neal *et al.*, 2012).

Africa has the highest rate of unintended pregnancies globally, translating to 8 in every 100 women. The rates are even higher in eastern Africa (Wasswa, Kabagenyi and Atuhaire, 2020).An estimated 14 million unintended pregnancies occur annually in this region, 44% among adolescent girls and young women (Opoku and Id, 2020). Nearly two-thirds of these adolescents have an unmet need for contraception(Ochako *et al.*, 2015).In addition, nearly half of all unsafe abortion cases in the region are among adolescent girls and women(Wado, Sully and Mumah, 2019).

Adolescent girls in Kenya have a higher risk of unplanned and unwanted pregnancies compared to older women(Ochako *et al.*, 2015). While numerous interventions seeking to address contraception needs of women in general are being employed, challenges still are profound for adolescent girls. Most times, unintended pregnancies occur as a result of incorrect or inconsistent use of contraceptives(Kwabena *et al.*, 2019).More than two thirds of adolescents who're sexually active are likely to report no-use of contraception(Ochako *et al.*, 2015). According to a study conducted by Guttmacher Insititute, (2018) 24% of 15-19 year old adolescent girls who're sexually active are in need for contraceptive and more than half have unmet need for modern contraception(Guttmacher Institute, 2019). Several factors affect uptake of modern contraception use among adolescent aged 15-19 years. Previous studies have highlighted the barriers to contraception uptake 15-19 year old adolescents. A study by Ochako *et al.*, (2015) highlighted myths and misconception as the main barriers to modern contraception uptake. This includes adhering to biological and social myths as well as misconceptions around contraception(Mwaisaka *et al.*, 2020) (Harrington *et al.*, 2021). Further, from Mwaisaka *et al.*, (2020) study, some of the myths and misconceptions included health complications such as prolonged menstrual bleeding, infertility and challenge when trying to conceive. In addition, the study also reported lack of sexual desire as one of the misconceptions. Inadequate and incorrect information

about contraception has contributed to these myths and misconceptions(Campbell, Sahin-Hodoglugil and Potts, 2006).These perceptions arise from family, peers and media(Kinaro *et al.*, 2015). Some of these myths and misconceptions have been contributed by cultural practices(Kinaro *et al.*, 2015). Another key barrier is negative attitude by providers through disrespecting the adolescents and sometimes discrimination(Bain, Amu and Tarkang, 2021). Frequent stock outs and sometimes high cost of commodities has been mentioned one of the barriers of contraception use among adolescents(Ochako *et al.*, 2015). Historic reduction in funds allocated to family planning (FP) programs in Kenya posing the risk to days of commodity/FP of stock outs experienced, as funds were diverted to funding human immunodeficiency virus (HIV) programs increased the risk of access to contraceptives(Ettarh and Kyobutungi, 2012). In addition, shame associated with contraception use among adolescents is also a barrier(Nzioka, 2004). Not to mention restrictive laws that demand for parental consent, and other legal restrictions that limit adolescents from accessing contraception and other sexual reproductive health services(SRHR Africa Trust, 2018). According to Chandra-Mouli (2014), these restrictions more often geared towards unmarried adolescents is a barrier for contraception utilization(Chandra-Mouli *et al.*, 2014). Lastly lack of youth-friendly services at the service delivery points, and young people engagement is also a barrier to contraception use among adolescent(PRB, 2018). This research work seeks to explore the factors influencing the access and utilization of contraception among adolescent girls in Kenya. The study will explore evidence-based interventions that have been tested and proven to improve contraceptive utilization among adolescents.

2.2 Justification

Adolescents constitute 25% of Kenya's population, a significant population. 18% of adolescent women in Kenya give birth before age 18, 46% of which are unwanted. Failing to address the issues of access and utilization of contraception could lead to higher maternal mortality rates and increased cases of unsafe abortion. We need to conduct this study to understand the factors blocking access and utilization of contraception among adolescents and young women. Addressing the unmet needs for adolescent

contraception is necessary if the country is still focused on meeting the health needs of all individuals/citizens, and attaining sustainable development goals.

Despite that some studies have been conducted in for instance Nyanza, Central and Coastal regions which have emphasized the social community stigma as a strong influencer and a social risk, more studies may be needed to unravel other influencing factors among adolescents in other parts of Kenya. Therefore, this study examines the factors influencing the access and utilization of contraception among adolescents in Kenya and informs policy and design interventions to curb unwanted pregnancy rates.

2.3 Goal

The overall goal of this study is to analyze factors influencing the access and utilization of contraception among adolescent girls in Kenya, and inform policy makers with recommendations to improve contraceptive access for adolescent girls in Kenya

2.3.1 Specific Objectives

1. To explore individual, population, and health system factors influencing contraceptive uptake among adolescent girls in Kenya

2. To explore existing policies on adolescent contraception and sexual reproductive health services in Kenya

3. To explore evidence-based interventions and strategies that have worked to improve access to contraception for adolescent girls in Kenya or other similar regions

4. To make recommendations towards the Ministry of Health and other relevant adolescent program implementers, in order to inform their policy development and practices with the aim to improve contraceptive access for adolescent girls in Kenya

3.0 Chapter three: Methodology

3.1 Research method

This thesis work is based on a review of literature. A search strategy was developed, containing key search terms and keyword combinations to guide review of literature as detailed in table 1 below. As illustrated in the search strategy below, certain keywords such as adolescents, contraception, access, Kenya, teenage pregnancy, family planning, Africa and youth were adopted. The words were connected with the factors using "AND" and "OR".

Publications in scientific journals were accessed through different search engines such as PubMed, Google Scholar, The Lancet, Springer Link, Research Gate, Vrije Universiteit library, and the Journal of Adolescent Health. Agency data and reports from the UNFPA, FP2020, the Guttmacher, UNICEF and Population Council were retrieved and used to triangulate the findings. Relevant unpublished grey literature were considered for inclusion in the analysis.

Local country policy documents on sexual reproductive health, demographic health survey reports, and national bureau of statistics reports were reviewed for adolescent contraception service provision guidelines. Demographic Health Survey reports and national adolescent policy documents and health reports were also included in the review. This literature enabled analysis of the country's progress on national contraceptive prevalence, legal frameworks for adolescent contraception service provision and related indicators. Reference lists of articles reviewed were also used for snowballing and retrieval of more articles. We used WHO websites and the Guttmacher institute, to retrieve literature on international and global guidelines regarding adolescent contraception.

Table 1: Search table

Key words	Specific objective 1	Specific objective 2	Specific objective 3
Adolescents contraception Family Planning Kenya Access Youth Teenage pregnancy SSA	Health literacy knowledge Information Approachability Health care workers attitude Caregiver/parent support Empowerment Wealth Income Cultural practices world health organization Autonomy Gender Appropriateness Social support Education	sexual reproductive health policy, legal laws, sexual reproductive health rights, sustainable development	Comprehensive sexuality education Policy Law Youth-friendly

3.1 Inclusion and exclusion criteria

To select articles for inclusion in the review, considerations were made to include those published in English language, and published between 2010 and 2022. Studies conducted using qualitative or quantitative and mixed methods were also included.

3.2 Exclusion criteria

Articles published before 2010 were excluded from the study as they may not reflect the current situation of health behavior, service delivery options or legal guidelines regarding adolescent health.

3.3 Framework

To guide the review of literature, we adopted the Levesque framework of access to health services. The Levesque is relevant to this thesis study because it constitutes all the dimensions of access and illustrates the interaction between providers, client expectations, and satisfaction and services(Levesque, Harris and Russell, 2013). The framework makes consideration to socioeconomic determinants, that is individual and population abilities, to perceive, reach, seek, pay and engage in healthcare and allows the analysis of barriers to access(Cu *et al.*, 2021).

In this thesis, we focus on access as a function of supply and demand(GH, 1983). Appropriateness of services, location among others are supply factors while knowledge and skills, self-care and practices are demand factors. Utilization of services [predisposing factors] is determined by perceived need of the service, as well as population factors such as cultural and social factors. Enabling factors to use health services are health system factors and structures that determine how services are delivered.

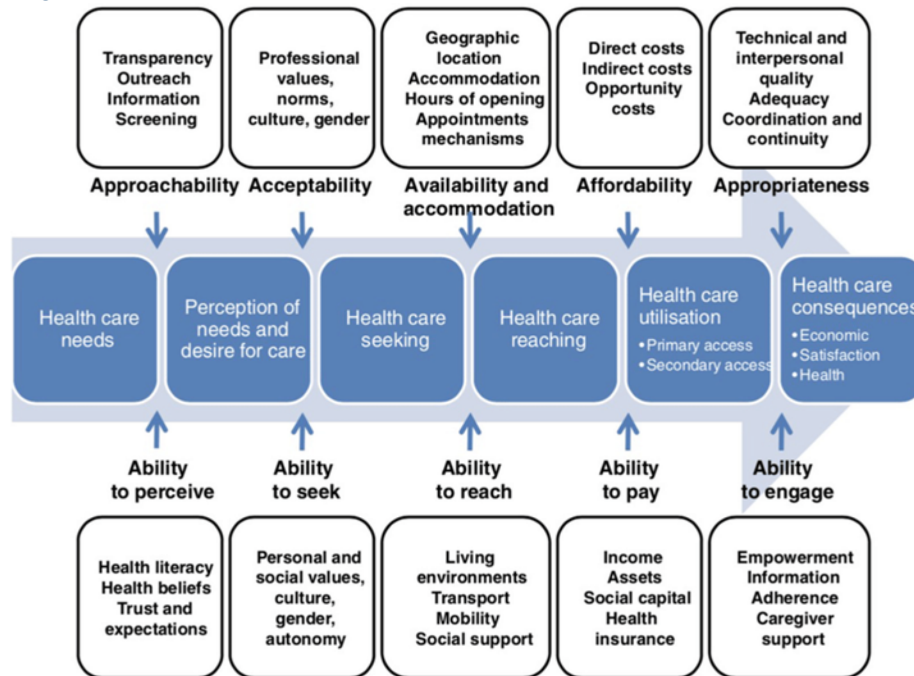
Although the framework suggests that population and resource factors can be modified to enable continuous access to health services, only resource factors can be adjusted. Fees charged for services for instance, waiting (are more responsive) to health policies than social and economic/population factors(Levesque, Harris and Russell, 2013). Overall, certain parts of the Levesque framework such as costs of contraception, geographic location, living environments and income have been indicated from literature as less important factors determining adolescent access to contraception. However, the approachability, acceptability and appropriateness of services have much more influence on the access and utilization of services, in addition to accommodation of services. Therefore this literature review focuses on the later factors. In addition, Levesque does not include laws and policies in their dimensions, literature has illustrated restricting laws

as a significant barrier. We therefore included the analysis of laws and policies in this study.

3.3 Limitations of the study

Conducting a primary research, mixed methods study might have expanded the findings of this thesis, and provided an opportunity for a more in depth analysis on individual experiences pertaining adolescent contraceptive behavior. Limiting the search to articles published before 2010 might have left out necessary literature pertaining this study. The Levesque framework was adopted for its ability to describe interaction between providers, client expectations, and satisfaction and services (Penchasky, J.F Harris 2013). However, some disadvantage with this framework was its inability to analyze the legal frameworks and regulations governing service provision.

Figure 4: Levesque conceptual framework of access to health services



Source, Patient-centered access to healthcare: conceptualizing access at the interface of health systems and populations (Levesque, Harris and Russell, 2013)

Penchansky and Thomas (1981) in their framework had defined access as ability to have healthcare needs satisfied. In 2013, Levesque and Russell expanded the framework, illustrating access the interaction between providers, client expectations, and satisfaction with services. The 2013 framework indicated that for utilization of services to be optimized, the interaction between perceived need, population and health system factors/structures were relevant consideration.

Consideration to adopt the Andersen's behavioral model of health services use were taken, but this model was limited by its inability to include individual and provider socio-cultural influence on utilization of adolescent services, as well as ability to engage/empowerment. Therefore, the Levesque model is more suitable in accessing literature. These factors have been implicated by other studies as important determinants of utilization of services.

Literature highlights individual/adolescent factors (ability to perceive, ability to seek, and ability to engage; to an extent ability to reach) and the health system factors (approachability, acceptability and appropriateness) as the most important blockages to adolescents reaching (accessing and utilizing contraceptive services. Therefore his thesis work focuses on healthcare needs, perception of needs and desire for care and healthcare consequences aspects of the Levesque framework. We will also explore healthcare seeking aspects in respect to accommodation of services.

4.0 Chapter four: Results

This section describes the findings from the analysis of factors influencing contraception access among married and unmarried adolescent girls in Kenya. These factors will be analyzed based on the Levesque framework of access to healthcare, affecting individuals to identify and seek healthcare needs and the enablers or health system factors influencing health-seeking behavior.

4.1 Individual, population, and health system factors influencing uptake of contraceptives among adolescent girls

4.1.1 Health care needs

Ability to perceive:

This section describes adolescents' knowledge, their beliefs and expectations from the health systems, when providing adolescent sexual reproductive health (SRH) services. Health literacy forms an individuals' foundation to accessing healthcare and to their wellbeing. According to Mutea (2020), lack of parental teachings places adolescent girls in a precarious situations that leads girls to lack access to sexual reproductive health

information(Mutea *et al.*, 2020). Additionally, SRH matters were rarely discussed at home; culturally, adolescents are perceived as children with no active sexual life.

In this study by Mutea, (2020), some adolescents were uninformed about SRH services and availability of services, while others believed in use of herbal medicine and in home births. Religious beliefs influence is implicated as a barrier of access to adolescent SRH with adolescents expected to abstain from sex by Christian leaders(Mutea *et al.*, 2020).

Health Literacy and Health Beliefs

Literacy plays an essential role in influencing the ability of individuals to recognize the need to seek health care. Low literacy levels reduce the ability to comprehend health information and reduce the ability to aim and engage with healthcare.

Teaching comprehensive sexuality education in Kenya is supported by government. However, programs tailored on abstinence-only show no significant impact in influencing adolescent sexual reproductive outcomes. Forty six (46%) adolescent have been exposed to sexuality education, but only 2% indicated gaining any knowledge. Further, although 96% of female adolescents have heard of contraception, only 41% sexually active are currently using contraceptives indicating the need to continue providing sexuality education(-Asare *et al.*, 2017).

The Kenya Demographic Health Survey (KDHS) 2014 indicates that literacy levels among Kenyan women aged 15-49 years is lower (88%) lower compared to that of men (92%), notably a small difference. However, most (29) counties literacy levels are above 90%, though marginalized communities in Northern Kenya have substantially low literacies (Garissa 43%, Turkana 41%). As discussed earlier elsewhere, Gatimu, (2018), individuals who are more literate have ability to consume, synthesize and interpret health information better. High levels of teenage pregnancies 28% in Samburu and 40% in Narok respectively, above the national teen pregnancy at 18%, illustrates existing inequalities in understanding and utilizing health information in the region (UNESCO, 2016);(National Bureau of Statistics Nairobi, 2015).

Literacy levels among Kenyan women are greatly influenced by education opportunities, shown to be highly influenced by cultural settings and practices(GATIMU, 2018). According to Gatimu (2018), existing gender inequalities that deny women and girls equal education opportunities, prioritizing education for the men and boys. Lack of skills to write and read influences ability of individuals to understand and make sense of health information. Adolescents with higher literacy levels are likely to better understand/synthesize health information(GATIMU, 2018), thereafter increasing ability of these adolescents to understand contraception access and utilization.

Ajayi (2020), found that adolescent girls in Kenya may lack information on pregnancy prevention, resulting in unintended pregnancies. In their study, pregnant adolescent girls from Homabay and Narok counties expressed dissatisfaction with teachers and guardians for failing to provide timely sexuality education on pregnancy prevention before they had engaged in sexual activities. In addition, the odds of having an unintended pregnancy are higher (66%) among adolescent girls of lower or only up-to-primary compared to girls still attending school(Ajayi *et al.*, 2020).

Not only the knowledge of adolescents play a role in the uptake, as well does the parental knowledge on reproductive health and sex. As a study in Kenya by Mwaisaka (2021), illustrated that parents and other adults in the community perceived sex as bad and dangerous. Consequently, there is nearly lack of/no parental-adolescent engagement in discussing sexuality matters. Adolescents perceived parents/adults as harsh, making it difficult to engage(Mwaisaka, Wado, *et al.*, 2021). Without contraception/pregnancy prevention and other SRH knowledge adolescents are less likely to access and utilize contraception.

Trust and expectations

In a study by Ajayi, (2020), adolescents often reported that inability to establish trustable relationships with mentors and health care workers at health facilities, capable of

maintaining privacy and confidentiality, coupled with their inadequacy in knowledge of contraception increased the risk to unintended pregnancies (Ajayi *et al.*, 2020).

4.1.1.2 Approachability

Providing comprehensive RH services at one service delivery point has been indicated to increase the same-day utilization of more than one service. This is a supermarket approach aspect. Unmarried adolescents in clinics where services are set part in different departments; FP not integrated with child welfare clinic or ou patient for instance, adolescents would experience low service/contraceptive uptake(Baumgartner *et al.*, 2012).

Evidence from Ethiopia, Nigeria and Kenya demonstrated an increase in FP use, FP counseling, and referrals for FP services for youths at integrated FP- VCT (Voluntary Counselling and Testing) sites for instance(Baumgartner *et al.*, 2012). The Baumgartner study showed that same-day uptake or intention to use FP led to increased FP use. This study also illustrated that the comprehensive nature of youth-friendly clinics made it more likely to reach youths not attending health service facilities through outreaches than static general population clinics.

4.1.2 Perception of needs and desire for care

Ability to seek:

This analysis describes how individuals perceive the need and what influences their desire for care, leading to the ability to seek services. These aspects are personal and social values, culture, gender, and autonomy.

Personal and social values

According to Okigbo *et al.*, (2015), the period between the onset of puberty and first marriage is rising in Kenya [probably due to more time spent in school]. This drives adolescents to engage in premarital sex, increasing unintended pregnancy rates. Although the age of first marriage is rising, many adolescent pregnancies still occur among adolescent women who are already in marital unions(Okigbo *et al.*, 2015).Studies

have argued that the rise in delayed pubertal onset and delayed first marriage has been attributed to personal and social factors, both physiological and intellectual changes occurring during adolescence. In addition to social interactions and the establishment of new adolescent relations, this depicted a high experimental phase that Okigbo *et al.*, (2015) argued was associated with many experiments, leading to risky sexual behavior and, after that, high premarital sex rates. Notably, adolescents have low knowledge of contraceptive use, increasing their risk for unintended pregnancies(Okigbo *et al.*, 2015). A study by Gueye, (2018) indicated that individual beliefs (myths and misconceptions) negatively influenced modern uptake of FP. However, community beliefs did not impact of FP uptake although compared to Senegal and Nigeria, Kenya had more numbers/proportions of persons believing in myths and misconceptions regarding FP(Yang *et al.*, 2015).

Culture and gender norms

Culture and gender play a significant part in accessing contraceptives for young women and girls. In addition to this, myths and misconceptions also negatively influence adolescents, reducing their utilization of contraception services. Moreover, societal norms, stigma and discrimination, and forcing young girls to remain virgins are all acts that create barriers to sexual education and parental guidance, eliminating opportunities to educate adolescents on sex and reproduction. Another Kenyan study showed how girls' perceived adolescent boys to receive less parental monitoring and discipline than girls/ In this study, adolescents perceived community norms as having double standards, allowing boys to engage in early sexual activity but reprimanding girls for it, a common practice in African communities.

Additionally, sexual communication and education with parents were considered taboo in African setups. However, this study showed disparities in the extent of protection sexuality education and parental communication achieved within communities. Not to mention that restrictive laws and policies demanding parental and spousal consent have been shown to hinder and disrupt adolescents from accessing contraceptive services ((Chandra-Mouli *et al.*, 2014); (Marston *et al.*, 2013).

Gender

Part of the existing barriers to uptake of contraceptives is related to gender norms. As indicated by (Wegs *et al.*, 2016)societal roles, gender, and norms negatively impact the acceptance; lack of rational decision on family planning by women, and men, who have the primary role in deciding when to use contraceptives. Besides, cultural norms of contraception limit women's and girls' autonomy and ''restrict'' communication and joint-decision making between men and women.Feroz *et al.*, (2021) conducted a study on gender decision-making during marriage, this study showed that gender roles adversely influence women from accessing contraceptives because women are exempted from decision making regarding family planning. According to Marston *et al.*, (2013)study, men decide on contraceptive use and acquisition. Saleem & Bobak (2018) confirm that men engaged more in decision making for contraception uptake, denying women the autonomy to make decisions based on education and personal will. Similarly, Wangamati (2020) affirms that poor interpersonal relationships women and their families and intimate male partners, acted as a barrier for contraceptive use.

Inequalities in power for decision-making held by men over women influences decision-making for sex with a focus on access and use of condom/protective or non-protective sex (Wangamati, 2020). For instance, Konkle-Parker et al. (2017) study demonstrates that sexual silence in the overall partner's relationship as per cultural norms, women fear being abused by husbands when negotiating condom use, and husband dependence (emotional, social, and economic) silence them. Relationship power entails one person controlling and influencing their partner's decision-making and behavior in a relationship due to fear of violence from one partner (male) (Kalolo & Kibusi, 2015). Besides, men tend to make final decisions on condom use, and women should be submissive based on traditional rights and culture (Saleem & Bobak 2018). For instance, macro-structural factors and culture guide behaviors that influence reproductive behavior, as women are indecisive in deciding on family planning or contraceptive use (Saleem & Bobak, 2018). The patriarchal cultural view accord men power over the number of children they should have during marriage or courtship.

Addressing Social, cultural, and gender inequalities

Evidence from an array of empirical studies demonstrate that there is an enhanced FP efficacy when women do not have to hide while seeking FP services. Women often illustrate the fear of IPV for not conceiving from the spouses as the cause of proper use/inconsistency in FP use. In addition, women empowerment, household decision-making, and autonomy to make a financial decision in the household has significantly been linked to increasing the use of FP

Autonomy

Requiring spousal and parental consent for married adolescents to facilitate the administration of contraception remains a massive problem in Kenya (SRHR Africa Trust, 2018). Therefore, the spouse lacks the right to decide on the childbearing, spacing, and delaying because the parents and the husband do the decision-making process. Besides, even when the adolescents want to delay, space, avoid, and limit childbearing or pregnancy and desire to use or obtain contraceptives, they are denied self-assurance by parents ((Chandra-Mouli and Akwara, 2020) & (Akwara and Idele, 2020).Besides, adolescents are embarrassed to accept they are sexually active and therefore to use contraceptives. Due to independence and lack of confidence in decision-making, another contributing factor is parental physical and emotional violence, which threatens adolescents in deciding on contraceptive use(Gonsalves *et al.*, 2019).

According to Sswerwanja et al., 2021, empowering women and girls found in non-African settings have more gender equality/inclusive setups that empower girls to make health decisions. Hence, have contributed to a higher contraceptive rate in Latin America and Europe, which have high CPR rates at 30% and 50% among adolescents, compared to Kenya (Sswerwanja, 2021).

4.1.3 Acceptability of health services

The professional values, norms, and gender are vital determinants of contraceptive use in Kenya, but their implications are associated with adverse influence on adolescents' decisions on childbearing. Makenzius *et al.*, (2019)) study on the stigma associated with contraceptive use and abortion in Kenya demonstrate, stereotypes, norms, and gender deny women and adolescents access to contraceptives as the stereotype ascribed to motherhood role. The stereotype (norms) implies that women should prioritize and embrace child caring and childbearing over other roles such as education. At the same time, professional values on contraceptive use and education on proper childbearing through family planning are seen as the first strategy for regulating childbearing among adolescents and women in Kenya (Bröder *et al.*, 2017).Hence, discussing how norms, professional values, and gender within the health system influence contraceptive use is the central focus of this section.

Professional values, norms, and gender

Health workers' behavior is influenced by their professional values or health facilities' prevailing norms, culture, and gender. Professional values, norms, culture, and gender are healthcare provider aspects that may influence how good healthcare service is by the health providers. Kenyan adolescents face multiple barriers to accessing quality SRH services. One underlying factor is the attitude of healthcare workers, who often create a hostile and unfriendly environment for adolescents, limiting their attendance to heath facilities for contraceptives and other SRH services (SRHR Africa Trust, 2018).

Regarding contraceptive uptake in Kenya, several studies indicate that adolescent girls experience social stigma related to healthcare workers (HCW) attitudes. A survey by Hakansson et al. (2018) in Kisumu showed a 39% (17/44) provider perception linking adolescents seeking contraceptive services to promiscuity. Another 36% (16/44) of health providers in this study were reserving contraceptives only for married adolescents. Stigmatizing adolescent sexuality and passing negative judgment is a barrier to accessing reproductive health services.

Adolescents are considered immoral for early sexual engagement, preventing any meaningful health provider and other community member engagement for sexuality

education and contraceptive advice. This limits the utilization of contraceptives and other SRH services despite their availability in health facilities(Alli, Maharaj and Vawda, 2013). Interviewed married adolescents; 20% (9/44) stated how using FP leads to infertility. In addition, 30% of providers interviewed said that granting abortion services only encourages adolescents to keep procuring more future abortions. However, the majority of (92%) HCWs taking part in this study say that all women deserve to be treated equally, and seen as a right by all, to access SRH services. This is closely linked to autonomy [the right of individuals to make decisions about their health].

Power dynamics, of healthcare workers over the girls regarding contraceptive use and the decision-making role is of great concern. For example, Vital, (2016) note that healthcare workers are highly trained to empower, educate, and inspire girls to increase trust and enlighten them from the adverse effects of early marriage and contraceptive use. Therefore, Wondmieneh *et al.*, (2020) supports that healthcare workers provide adolescents with future planning tools protects their rights and health. Yaya et al. (2018) study reveal that healthcare workers educate adolescents on the negative influence of pre-marital sex that facilitates unsafe abortion and increases vulnerability to sex. The healthcare workers believe the use of contraceptives amongst adolescents has increased immorality and school drops out due to high susceptibility to sex, subjecting adolescents to early marriages (Yaya et al., 2018).

Typically, caregivers believe denying girls contraceptives may thwart or inhibit adolescents from indulging in a sexual act. However, caregivers perceive that girls secretly engage in 'immoral' behaviors, isolating themselves from social interaction and discussions with caregivers due to denial of contraceptives and ignorance from healthcare workers (Ozaydin et al., 2020). Conversely, (Chandra-Mouli and Akwara, 2020)reveal that adolescents foregoer contraceptive use if caregivers have no confidentiality assurance. Similarly, a breach of privacy law might occur when sensitive information is released to adolescents. Hence, this situation is known to affect adolescents' health-seeking behavior intensely. Such non-friendly environments reduce access to health services. Although the magnitude of adolescent girls not receiving

needed health services due to health provider bias may be understudied (Sommer et al., 2015).

4.1.4 Health care utilization

Ability to pay:

Willingness to pay by patients after reaching the health services/facility is influenced by personal income, assets, social capital, and health insurance. For this research, limited focus was laid on ability to pay, since most of the services related to contraceptive vary various Kenyan contexts. However, the following section provides an overview of health care insurance in the Kenya contexts and its role in the context of contraceptive use.

Health Insurance

Timely, reproductive, and sexual health care is significant universal health coverage found in the Sustainable Development Goals that allows nations to offer good reproductive health services Fuentes et al., (2018). Universal healthcare coverage curtails unsafe abortions and unintended pregnancies. The universal healthcare coverage integrates human rights during its investment in national government on contraceptive spending level on abortion care, newborns, and contraceptive to curtail the unintended pregnancies occurrence amongst adolescents. Thus, Guttmacher Institute (2021) confirms that universal health coverage bundles reproductive and sexual health service delivery by offering cost savings such as safe childbirth and abortion that curtail expensive and dangerous complications (Miller et al., 2013). Recently, WHO guidelines on reproductive and sexual Health and Rights are increasing quality and comprehensive sexual education, modern contraceptives service, and counseling on approximate methods and use.

Therefore, Universal health coverage supports contraception provision to adolescents, increasing access to contraceptive use through a social integration of contraceptive services with multiple health facilities. Including contraceptives in the existing health insurance schemes will increase access to FP for insured individuals, bolstering equitable access to Family Planning. The government will ensure that post-partum family planning

services are included in its Free Maternity policy (Linda Mama program). The government invests 3 billion Kshs annually to ensure mothers access to free care at the point of delivery. Kenya will broaden access and choice, especially in poorer regions such as Northern Kenya, by strengthening public and private health providers and through the provision of long-acting and permanent methods of family planning. The Government will also scale its efforts to equip health providers with skills in the condition of long-acting methods with close partnership with private sector providers.

The Government reaffirms its commitment in line with the National Adolescent Sexual and Reproductive health policy to expand access to youth-friendly services for adolescents and young people. Specifically, by improving existing service provision channels to provide accurate information and services on a wide range of contraceptive methods to capture the diverse needs of adolescents. The government will ensure that all pregnant adolescents, including the poor and 'hard-to-reach,' have access to skilled care throughout pregnancy and delivery and that postpartum family planning services are offered. The government will also establish linkages for effective referrals to relevant services for pregnant adolescents. Kenya will work with the national supply agency (Kenya Medical Supplies Agency) to ensure that family commodities are costed before being distributed to counties. The government commits to increasing demand for and access to family planning among those counties in 2 the northern arid lands (NAL) with the lowest mCPR and highest unmet need and to improve contraceptive commodity security. This will be done with support from partners and through NHIF.

4.1.5 Healthcare consequences

Ability to engage:

The ability to Engage refers to how well the individual can engage or become involved with the care offered. This is determined by empowerment, information, adherence, and caregiver support.

Information and adherence

According to the Kenya demographic health survey, 2014, knowledge of contraceptives is universal in Kenya among women of reproductive age (15-49 years) and does not vary based on social determinants. The relevancy of having previous knowledge on contraceptives cannot be underplayed as it serves as a prerequisite, driving the decision to use contraception (Yonga *et al.*, 2014). Adolescents are thought to experience challenges using contraceptives correctly and consistently, despite the high rates of unintended pregnancies reported among girls of this age (10-19) in Kenya. This poor use [incorrectness and inconsistency] is a significant cause of unintended pregnancies. Still 18% of unintended pregnancies result in death or early school dropout(Kungu, Khasakhala and Agwanda, 2020). Studies have shown that injectable contraceptive is the most preferred short acting method among adolescents, with oral pills coming in second, followed by condoms. However, these short acting methods is questionable, primarily due to the incorrectness and inconsistency in practice used for this population(Kungu, Khasakhala and Agwanda, 2020). According to Kungu,et al, (2020)adolescents are also likely to discontinue contraceptive use. Not only is this a challenge due to improper use, but also that short-acting FP is less effective with 56% compared to Long-acting reversible contraception (LARC) (99%) (Kungu, Khasakhala and Agwanda, 2020)

According to Hubacher *et al.*, (2017)women using short-acting FP methods (injectable, condoms, oral pills) experience a higher risk of method failure due to lack of resupply versus days of stock out, side effects, and temporariness of use as a result of temporal sexual activity. As a result, LARC can assist in reducing the very fast repeated, unintended pregnancies occurring among adolescents at a higher risk. Additionally, due to the nature of long-acting contraceptives (long duration of use above three years), they overcome the challenge of poor service, making it safer and more convenient to reduce unintended pregnancies. Ultimately, LARC has no challenge of adherence (Kungu, Khasakhala & Agwanda, 2020a).

In 2015, the world health organization (WHO) declared LARC safe for adolescent girls in the Global Consensus Statement on youth and LARC. This was to prevent unintended pregnancies and encourage more birth spacing among adolescents. Moreover, this would decrease the risk of pregnancy and birth-related complications, social and other life-long complications, increase economic opportunities and contribute towards achieving the sustainable development goals(NANCY YINGER, 2016).In a study by Dempsey *et al.*, (2012)evidence shows that using LARC is beneficial in reducing unintended pregnancy rates among adolescents and young women. According to the KDHS 2014, at least 31% of women using an FP method will discontinue within 12 months after starting use. Side effects and health complications (11%) remain the most cited concern for discontinuation (Yonga *et al.*, 2014).

4.2 Existing policies on adolescent contraception and sexual reproductive health services in Kenya

With a more youthful population (24%) below 20 years of age in Kenya, sectors in government need to remain attentive to the needs of adolescents for the country to attain its development plan (Vision 2030) towards sustainable development. Kenya developed an Adolescent and Reproductive Health and Development Policy (ARHD) in 2003. After that, local and international changes took place, necessitating changes in the policy document that led to a review in 2013. This was in line with the publicized Constitution of Kenya 2010 that was followed by a shift in governance structures and decision-making, delegated down from national to county governments. Coordinating health activities [regulation of healthcare services, HCPs, health products, and technologies] between national and county governments is regulated by Act No 21. of 2017. The ARHD policy review also aligned with Kenya Vison 2030 targets, aiming to provide adolescents with economic and development opportunities and life skills. This also means providing additional opportunities for adolescents to attain education and successfully transition to responsible adulthood.

Notably, Gonslaves et al. (2019) study findings demonstrate that since 2013, Kenya has made impressive gains in Adolescent Sexual Reproductive Health (ASRH) programming improving service delivery and creating a friendly environment for designing strategies and policies on ASRH(Gonsalves *et al.*, 2019). Also, Manguro & Temmerman's (2020)

study asserts that there is better stakeholder engagement between players in government, Non-Governmental Organizations (NGOs), civil society organizations (CSOs), and the private sector (Manguro & Temmerman, 2022). More adolescents are becoming empowered and are experiencing increased awareness of contraceptives and other ASRH services, in addition to better utilization and uptake of ASRH services, including contraceptives. Furthermore, the knowledge and attitudes on ASRH are increasing among teachers, parents, communities, community leaders, adolescents, and other stakeholders. However, Kenya still has challenges such as poor youth involvement, delayed formulation of plans of action, poor coordination and weak support systems from religious and cultural leaders on ASRH, and limited resources restricting fast development. Nonetheless, the government remains committed to improving national ASRH rights and involving adolescents fully in improving the country's economic status, increasing economic dividend, and ensuring adolescents achieve their full potential to develop (Bose et al., 2021).

Kenya's legal and policy environment is within regional and international treaties relevant to human and sexual reproductive health rights for women and girls, such as the ICPD 94', Maputo Plan Of Action 2003 (ratified in Kenya in 2013) (Nduta Waweru, 2015).Comprehensive Sexuality Education (CSE) and SRH Services for Adolescents and Young people in Eastern and Southern Africa (ESA, 2013) improving implementation of a rights-based approach to contraceptives provision in addition to teaching sexuality education in school programs. Locally, the National Reproductive Health Policy (NRHP) 2007, Kenya Vision 2030 are driving development but are faced with social and individual challenges, poverty, and inability to meet income statuses by adolescents. This leads to poor health outcomes and reduces the ability to purchase health products such as contraceptives.

Kenya has been implementing CSE programs, but the literature illustrates that there have been challenges- and teachers are biased in tackling sexuality education topics and teaching abstinence versus safe prevention practices. CSE programs could be better coordinated and the quality of the program (sexuality topics covered in schools) be centrally coordinated and supervised through MOE and MoH throughout the country.

Inability to meet income status, poverty, social, and individual challenges often are more significant causes of poor health outcomes than adolescents' failure to utilize health services. Kenyan Law (2013), Act No. 14 of 2013, State that the Constitution requires proper regulation and promotion of primary education to all gender with equal governance and management for every gender. Besides, article 43.1. a Kenyan Constitution guarantees the right to the highest achievable health standards, such as the right to good health care services encompassing reproductive health care, but prohibits abortion. At the same time, Act No.8 of 2001 protects adolescents' negative social welfare, health, and traditional practices that may affect the adolescent negatively (Kenya Law, 2013). The period of adolescence requires a keen focus by all actors, including government and development partners, for a country to realize its development goals (MDG's, mid-term Vision 2030 2017-2030 goals).

4.3 Evidence-based strategies and interventions that have improved access and utilization of contraception among adolescent

Uptake of contraceptive services among adolescents

The best approaches and interventions to enhance the uptake of contraceptive services among adolescents should base on implementing policies and laws. Policies emphasize provision of contraceptive care delivery and sexuality education for adolescents, building community support, and increasing contraceptive use thus reducing unwanted pregnancies. Therefore, girls require proper understanding and knowledge, significantly curtailing coerced sex and pregnancy prevention (Logie et al., 2022). Similarly, direct action, such as health system actions, encourages hormonal contraceptives and condom use.

It is prudent to enhance counseling services and deal with social supportive cohort norms by improving community leaders' influence, contraception risks, and adolescents' information requirements to elevate well-being (Makwinja et al., 2021). In most cultures, social norms inhibit contraception discussion promoting misconceptions and knowledge gaps that should be eradicated. Likewise, Manguro & Temmerman (2022) recommend

that proper inter-personal communication, peer education, and leaflets and posters successfully communicate adolescents' acceptable and healthy use of contraceptives.

This section presents evidence-based strategies that improve adolescent girls' access and utilization of sexual reproductive health services. We reviewed these strategies based on relevant factors identified earlier to significantly influence service delivery and access to SRH services from similar country contexts to Kenya.

4.3 Health literacy and comprehensive sexuality education

Health literacy is a factor that influence uptake, therefore comprehensive sexuality education is an important approach to address in the improvement of accessing contraception and SRH services (Okigbo & Speizer, 2015).

4.3.2 Adolescent 360 (A360)

The A360 project was designed to increase access to and demand for modern contraception in developing countries, designed to run between 2016-2020. The 4-year initiative was implemented by a consortium led by Population Service International (PSI), starting in Nigeria, Ethiopia, and Tanzania. The project was co-funded by Bill &Melinda Gates Foundation and Children Investment Fund Foundation (Sidibé et al., 2020). It aimed to develop country-specific adolescent and youth SRH solutions centered around six thematic areas: Human-Centered Design (HCD), social-cultural factors, public health, youth engagement, adolescent development, and marketing. The A360 project was based on a multidisciplinary approach, with HCD driving the design and implementation process and the other five disciplines feeding into it (HCD). Evidence showed that for interventions to be highly effective, they should adopt a multicomponent approach.

The main goal of A360 was to meaningfully engage and form partnerships with adolescents and youth as partners during the designing and implementation phase of the project. In its implementation, one approach adopted was linking contraception use to life aspirations. The A360 provided solutions that sought to position contraception as relevant and valuable through aspirational messaging about achieving personal dreams, autonomy, the value of self-worth, caring for a family, and financial planning. As described

above, youths were engaged from the project's design phase as important decision-makers and later through all phases. However, the project recognized a failure to incorporate and design for solution implementers (such as health care providers) who were necessary for measuring the success of this project. Findings from the Mid-Term Review conducted in August 2018 showed that 120,443 adolescents had attended the project, and 65,971 had adopted modern contraception. Comparatively, Northern Nigeria contributed 70% of contemporary contraception uptake, Tanzania 61%, Ethiopia 62%, and Southern Nigeria 42%. The A360 project had intended to reach about 250,000 adolescents with modern contraception.

In addition, providing contraception ''under the radar'' and assisting adolescents in accessing contraception without facing community stigma, for instance, branding contraception provision events as vocational or entrepreneurship training, thereby by-passing community judgment and stigma, seemed not a suitable approach. Although this increased contraception uptake for adolescent girls, the strategy lacks sustainability and fails to face head-on harmful community norms, myths, misconceptions, and stigma surrounding adolescent contraception (Newport *et al.*, 2019)

4.3.3 Community-Based Distribution and Social Marketing of Injectable Contraceptives

Expanding contraceptive access and improving family planning service reachability is a quality, proven intervention designed to increase services to hard-to-reach communities by relying on community health workers. Despite multiple challenges in using contraceptives, like lack of autonomy amongst adolescents, community-based-distribution and social marketing of injectable contraceptives is amongst the best for remote regions.

Evidence from a study in Ethiopia, successful in improving accessibility to contraceptive uptake. Therefore, the proper implementation of social marketing and community-based distribution of injectable contraceptives is a vital intervention and suits the three districts in the Central Zone of Tigray Ethiopia between November 2011 and October 2012. The model combines social marketing with community distribution of DMPA through a

revolving fund in the community. Community extension workers then charge a small fee-for-service to recover program costs from the revolving fund and pay a stipend compensation for the DMPA distributors.

Women and girls would be exempted from fee-for-service by CBRHAs in scenarios outlined in training: for women who were too poor to afford services and if adolescents required services in private for fear of community stigma or any other discretion by the CHBRAs. However, CHBRAs were not compensated for these free services. The social marketing in this project aimed at increasing awareness and generating demand, promoting CBRHAs, and gathering community confidence in CBBRHAs as a valued service delivery option. Client satisfaction was essential for creating demand for other women in the community. CBRHAs were respected and valued leaders in communities.

CBRHAs were recruited by the Women’s Association of Tigray and trained on the provision and social marketing of DMPA. Clinical staff did the training from the Tigray Health Bureau, Mekelle, and the University of Berkeley involving counseling for all FP methods, practical sessions on safe injection, reporting of side effects, management of funds, screening and referral, and resupply. The project's focus was on reaching new FP users, with refresher pieces of training provided after nine months. CBRHAs were linked to local health posts for clinical supervision provided by public sector health care workers. Baseline data collection is conducted before the beginning of project implementation. Interviewing questioners were adapted from the FP sections of the DHS, translated, and back-translated.

Consequently, male involvement initiatives have yielded results, impacting culturally/socially constructed gender roles that previously saw men not getting involved in the health activities of women and the children. Studies by Haberland & Rogow (2015) demonstrated that community dialogues and male involvement activities (role plays) of joint decisions for family planning influence FP’s acceptability. Furthermore, men are now more involved in household chores, demystifying gender constructs, and are more engaged in their children's health. Spousal support is also positively associated with increased uptake of FP

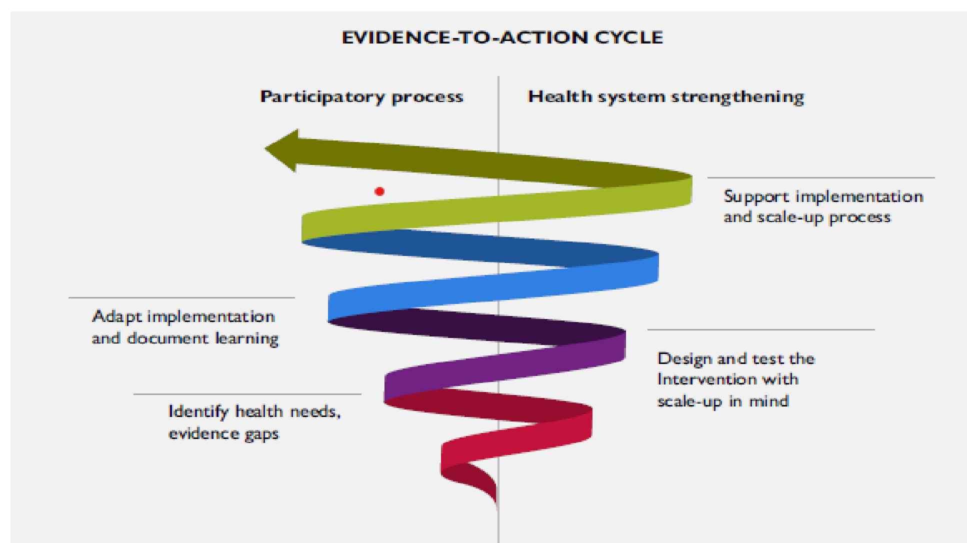
4.3.4 Evidence to Action (E2A)

, the E2A is a global project (USAID, 2021) designed to strengthen quality family planning and reproductive health service delivery for women, girls, and underserved communities. The project aimed at improving service delivery for FP and RH services to increase voluntary contraceptive use. It was based on three pillars- youth activities, method choice, scale-up building evidence, raising support, and facilitating scale-up of high-impact practices that would transform the health of families and communities in 17 countries. Burkina Faso, Burundi, Cote d'Ivoire, DRC, Ethiopia, Guinea, Kenya, Malawi, Mozambique, Niger, Nigeria, Senegal, South Sudan, Tanzania, Togo, and Uganda (USAID, 2021)

Youths were viewed as unique individuals with divergent needs. The project focused on first-time parents (FTPs), considered vulnerable individuals needing information and service. For this reason, the project prioritized FTPs. It was provided a sequenced package of information and health services, pushing them to action to improve the health and well-being of their families. FTPs faced an increased risk of poor pregnancy, delivery, and child outcomes associated with high birth rates among 15–19-year-old adolescents living in the developing world (12 million yearly). FTP projects were implemented in Burkina Faso, Tanzania, and Nigeria. In Cross River State, Nigeria, voluntary modern contraceptive use among young FTPs increased from 26% to 79% in non-pregnant adolescent mothers. In Tanzania, decision-making to use modern FP jointly with their spouses in joint decision-making increased FP use to 81% from 69% baseline (USAID, 2021).

Additionally, youths were engaged to participate as meaningful civil society agents and acted as leaders championing for their governments to provide youth-responsive health systems. As a result, countries have enhanced the delivery of quality FP and RH services, reducing unintended pregnancy and gender inequality rates. E2A project activities were 88% youth activities, 82% scale-up, and 88% method choice activities. These advanced voluntary FP use among adolescent and first-time non-pregnant mothers, seizing missed FP opportunities (USAID, 2021).

Figure 4: The E2A Evidence-to-action cycle



Source:(USAID, 2021)

The project approach followed the Evidence-to-Action Cycle for delivering high-impact practices in family planning, adapting, and scaling up innovations that responded to the needs of communities. Specific high-impact innovations such as adolescent-responsive services, community group engagement, digital technology, mobile outreach, and community health workers were adapted and implemented at scale to increase FP use (USAID, 2021).

4.3.5 Mobile health (M Health) study

Mobile health (mHealth) entails using portable electronic devices using applied softwares to offer contraceptive health services and patient information management. Although the application and use of mobile health interventions have proven to significantly improve contraceptive uptake in developing countries with few effectiveness speculations, proper use of this intervention suits adolescents in developing nations (Pew Research Center, 2015) . In the modern digital world, information acquisition, awareness creation, and enlightenment on sexual learning, such as using condoms and contraceptives, are the best strategies for sensitizing on family planning among adolescents (Aung et al., 2020).

Accessing comprehensive sexuality education is essential to improve the ability to perceive health services and health literacy. An exciting way for adolescents is to receive SRH information through M health. According to a study by Logie et al. (2022), adolescents expressed high satisfaction with M health due to their flexibility, privacy, and confidentiality while accessing sensitive sexuality education. Michielsen (2021) further note that M technology increases reproductive health knowledge, ensures safer sexual behavior, and increases sexual health knowledge. Michielsen (2021) confirms that M-approach is an evidence-based method that elevates comprehensive sexuality education to facilitate ‘implementation through mobile technology sensitization. Through human rights, empowerment, and sensitization approach using the social media platforms. According to Jefferson et al.’s study among Kenyan adolescents, mobile phones and digital apps are becoming popularized for delivering health information among adolescents. In their research, adolescents expressed high satisfaction with mobile phones and digital apps due to their flexibility, privacy, and confidentiality while accessing sex education information. In this Kenyan study, the goal of digital platforms was to improve access to family planning services and demonstrate effectiveness in providing timely Family Planning (FP) information. In addition to increasing health messaging, there after- increasing knowledge on prevention mechanisms for unplanned pregnancies(Mwaisaka, Gonsalves, *et al.*, 2021).The platforms seemed promising regarding information sharing, achieving positive behaviour change among adolescents, and linking adolescents to health information and services (Okigbo & Speizer, 2015). Aung et al. (2020) illustrated as well that using mobile health platforms and other wireless technologies in delivering SRH information to adolescents are significant public health innovations. Evidence has emerged that digital media are becoming popular in providing health information. Adolescents expressed high satisfaction with these platforms due to their flexibility, privacy, and confidentiality while accessing sensitive; sexuality education. Infarct is a study by Mwaisaka *et al.*, (2021)). Digital platforms improved access to family planning services, provided timely FP information, and prevented unintended pregnancies (Mwaisaka, Gonsalves, *et al.*, 2021).Another study by Pew Research Center, (2015) showed how the proliferation of mobile phone networks had changed communication globally. Like Kenya, countries like Uganda, Tanzania, and Ghana rose

from an average of 10% of mobile phone owners in 2002 to about 80% in 2014. This is beneficial for adolescent SRH, as evidenced by Pew Research Center, (2015).; study finding text messaging to be more popular among young people, increasing opportunities to deliver contraception messaging and other SRH information to even the hard-to-reach rural adolescents(Pew Research Center, 2015)

5.0 CHAPTER FIVE: DISCUSSION

5.1 Ability to perceive, seek and engage with health services

Accordingly to this literature review; Health literacy and beliefs, cultural beliefs and practices, information and adherence, gender norms, caregiver support influenced individuals' and community perceptions and attitudes towards contraception. However the cultural influences on the access and uptake of contraceptives has come out as the most significant factor. Community influences appear to strongly influence sexual reproductive behavior and outcomes, increasing adolescents' vulnerabilities who try to fit into existing cultural norms. Generally, literature revealed that societies propagated male dominancy for education opportunities and decision-making on health, influencing adolescent girls' autonomy. Yet women's role in countries to achieve sustainable development has been cited. This reflects entrenched social fabrics harmful to the health of women and their children. The influence of cultural beliefs and practices deters even medics and other HCWs who have undergone training to provide quality health services, depicting the injustices on adolescents and the violation of human rights. Though cultural beliefs and norms are the most influential factor, it would improve adolescent SRHR interventions, or achieve better contraceptive access for adolescents by addressing this cultural barrier.

5.2 Organizing health care systems and healthcare worker's attitudes

Adolescents' patronage of contraceptive services heavily depends on how the health system is organized, including health care workers' attitude towards providing these services. Reviewed literature in this study has revealed that negative HCW attitudes that stigmatize young peoples' uptake of contraception. Health care workers are often a barrier

for adolescent girls to be able to use contraception in Kenya. Religious beliefs on the part of HCWs and community members provided a basis for judgmental attitudes towards adolescent SRH services, thereby impeding meaningful engagements for contraception. Adolescents' fear of being stigmatized and the unsupportive provider-client relationship has been found to compromise the human rights and autonomy approach to contraceptive services (SRHR Africa Trust, 2018;(WHO, 2010),(Håkansson *et al.*, 2018)**.**

From the findings, HCWs' opinions about premarital sex contributed to their refusal to provide SRH services to adolescents. This is probably due to their moral attributes, upbringing, and cultural background on premarital sex. Besides, HCWs reside in these cultural and social settings, influencing the behavior and attitudes towards adolescents (Hakansson et al., 2018). Despite Kenya having extensive laws and policies on ASRH, and given that it is a constitutional right for all women to access contraception, the implementation of these policies into practices is still lacking. Therefore, vigorous education of the general public about the importance of improving the health outcomes of adolescents as well as the contribution of SRHR to the achievement of the SDGs through mass media campaigns is worth considering. Critical stakeholders in policy formulation and implementation are paramount to holistically address the challenges of effectively implementing SRHR policies in Kenya. These are traditional and religious leaders, opinion leaders, adolescents and youth, HCWs, parents, policymakers, and other actors such as non-governmental organizations and civil societies, mass media, and communities. Besides, adolescents constitute nearly a quarter (24%) of Kenya's population. It is important for Kenya to address the sexual reproductive health needs of this population, if the country is to realize the sustainable development goals 3,7 and 8 on reaching universal health coverage for all, education, and employment opportunities for the youth/adolescents.

6.0 CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

This study has revealed that Kenyan adolescents' access and utilization of contraception and other SRH services are influenced by multiple factors, barring adolescents from taking services. From this analysis, adolescents' abilities to perceive, seek and engage with the health systems were very much dependent on individual health literacy and beliefs, as much as cultural and social practices influenced them. The analysis adopted from the Levesque model showed low health literacy levels among adolescents. In addition, cultural norms and social stigma propagating sexuality education with parents as taboo, ostracizing adolescents for engaging in early sex, patriarchy, and gender inequalities reproduced in community's deterred autonomy for young women hindering empowerment from participating in making decisions about their health. In addition, myths and misconceptions and social stigma influenced FP use. Altogether, these population-side factors hindered adolescents from accessing FP services.

Performance of the health systems was primarily an outcome of health care workers' attitudes and acceptability of services by adolescents. The findings revealed that negative health care workers' attitudes were an essential barrier to adolescents' access to contraceptive services. HCWs were often stigmatizing and judging keeping adolescents from attending health facilities. The lack of capacity and training to establish quality interpersonal skills for youth-friendly services by HCWs made health systems unattractive and unapproachable to adolescents. Although policies on ASRH, CSE, and YFS are a constitutional right for all women in Kenya to access contraceptive services, the implementation and realization have been ineffective, as evidenced from the literature. Restrictive laws demand spousal and parental consent, yet constitutional rights in Act 217 in the Kenyan laws are a barrier to adolescent contraception and must be disseminated appropriately.

The evidence informed practices findings show that mobile health platforms' are used to increase SRH information, address social-cultural influences and male involvement, and demystify gender roles. Besides recognizing autonomy and women empowerment,

engaging youth to take leadership roles and design their programs improves contraceptive utilization and other SRH services among adolescents.

6.2 Recommendations

We recommend that MoH coordinates and ensures that HCWs are continually trained and capacity built on delivering youth-friendly services. Support supervision at health facilities delivering health services (youth-friendly) by county and sub county ministry of health officials, together with mentorship on building attractive interpersonal skills among HCWs is necessary if we were to attain effective communication between HCWs and adolescents.

Multi-sectoral collaboration between MOH and other relevant departments in government like the ministry of education (MOE) is recommended, to effectively achieve health outcomes through the sexuality education topics encompassed in CSE school programs.

Continually engaging with communities and empowering members through education forums and sensitizations on matters relating to SRH adolescent is recommended. That is to say that a having a more holistic approach and bringing everybody to be involved at the core of adolescent matters is essential. When communities understand the vulnerabilities associated with the adolescence phase, including lack of knowledge, inability to make individual health decisions (restricting laws), lack of parental support, gender inequalities among others; communities are more likely to support adolescents' sexuality matters effectively. Further, we recommend that these sensitizations include topics on gender role clarification and gender demystification. Cultural beliefs and practices that could potentially harmful to adolescent health sh ould be addressed.

Although government through the MoH has instituted elaborate policy environments for ASRH and committed to supporting the policies to align with the Kenya Vision 2030 and SDG targets, a number of challenges still exist. The laws in Kenya of the 2010 constitution have elaborated in Act no 217 that all women have a right to access contraceptives. However, adolescents are still discriminated. We recommend that MoH should coordinate and harmonize what is in the policy documents, with what is implemented at provider and

health facility level through training and capacity building HCWs. Continued mentorship and supportive supervision to HCWs is necessary to improve the quality of services provided.

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