

FACTORS INFLUENCING MODERN CONTRACEPTIVE USE IN SUB SAHARAN AFRICA; A SYSTEMATIC REVIEW

ABSTRACT

Background

Contraception is an important element of reproductive health that has a big impact on people's health. High fertility has been associated to poor maternal and child health and an increased risk of maternal mortality. Modern contraception and reproductive health services are uncommon in Sub-Saharan Africa, and they differ greatly between areas, particularly in rural and emerging populations. The goal of this study is to determine the factors that influence the usage of contemporary contraception in Sub-Saharan Africa.

Aim

The aim of the study is to determine the factors that influence the usage of contemporary contraception in Sub-Saharan Africa.

Methods

MEDLINE, CINAHL and African Journal Online databases will be subjected to systematic search for the review. The key words adopted in the search strategy were related to "Modern Contraceptives", "Factors", "Contraception", "Modern Contraception in Sub-Saharan Africa", "Modern Contraception". The studies will be screened for eligibility and evaluated for methodological quality. Data extraction will be done in line with the objectives of the study. A narrative synthesis approach will be adopted for data analysis and synthesis after extraction from selected studies.



1.0 Introduction

Modern contraception, according to a United Nations (2015), is a vital part of reproductive health having a significant influence on people's health. When fertilization occurs spontaneously (unprotected coitus) when the spermatozoon is mature and capacitated, conception can happen at any time within the fertile period (Handady *et al.*, 2017; Tilahun *et al.*, 2018). However, according to Wang *et al.* (2017) and Izugbara (2010) there are times when prevention against unexpected pregnancy is essential, which might have harmful consequences. Some publications have posited that high fertility has been associated to poor maternal and child health, as well as an increased chance of maternal mortality (Sunmola, 2015; Frini and Nabag, 2017; Obwoya *et al.*, 2018; Aliyu *et al.*, 2016). Unwanted pregnancy is a global problem that affects women, their families, and society as a whole, despite scientific breakthroughs in contraceptive methods (Ijadunola, 2014; Lim *et al.*, 2015; Crissman *et al.*, 2018). One of the primary aims of the Sustainable Development Goals (SDGs) is to enhance universal access to sexual and reproductive health (SRH) services, with modern contraception being one of the top priorities (Paz-Soldan, 2012; Izugbara, 2010; Bukar, 2016; Palamuleni, 2015; Osei, 2018). By spacing out births, preventing conception at high-risk mother ages, and having a large number of children, modern contraception improves health. Barrier techniques (condoms or cervical caps), hormonal treatments (the pill), intrauterine devices (IUDs), and sterilization are all examples of modern contraception (Bogale *et al.*, 2011; Lim *et al.*, 2015; Starbird *et al.*, 2016). The method chosen is based on the woman's general health, lifestyle, and social relationships. Regardless of these disparities, population growth and unwanted pregnancies remain high in Sub-Saharan Africa (SSA) and across the world. Rapid population growth, induced by a lack of effective contraception, strains many developing countries' resources, risking economic progress and political stability. In the year 2004, it was predicted in a report that by 2025, Sub-Saharan Africa will have a prevalence rate of 28 percent, rising to 50 percent by 2030 in contraception (Saluja *et al.*, 2019).

In Sub-Saharan Africa, modern contraceptive and reproductive health services are scarce and vary widely between regions, particularly in rural and developing



communities (Fallis, 2013; Adongo *et al.*, 2014). According to a study by Gore and Katkuri (2016), the proportion of modern contraceptive acceptors has decreased with time, from 27.8% in 2014 to 26.5 percent in 2016. Unintended pregnancies, improper child spacing, and greater hazards connected with delivery and closed-spaced pregnancies are all possible consequences of this low proportion (Starbird *et al.*, 2016). Without the use of modern contraception, these rates would result in rapid population growth, putting a burden on the region's limited resources. Understanding the variables that influence modern contraceptive use is crucial to closing gaps in uptake and meeting unmet needs. Despite considerable promotion, only a small percentage of people utilize modern contraception. Knowledge, religious beliefs, occupation, financial worries, educational level, fear of bad consequences, partner rejection, and difficulty making decisions at home are the main factors influencing the usage of modern contraception (Sunmola, 2015; Aliyu *et al.*, 2016; Lim *et al.*, 2015; Starbird *et al.*, 2016). An assessment of current modern contraceptive use levels and variables that impact use is relevant and appropriate, given the relatively low modern contraception acceptance rate in SSA and insufficient research on factors that influence use (Saluja *et al.*, 2019). Contraception is a way to reduce unintended pregnancies, which contribute significantly to maternal morbidity and mortality, and it remains a cornerstone of program funding; thus, what's at stake is not only gaining insight into trends in knowledge and use, but also understanding why women and couples are still not using modern contraceptives. Furthermore, because there is such a substantial body of material on contraceptive usage in Sub-Saharan Africa, an assessment of the variables or factors that influence the use of modern contraception is necessary. It is owing to the fact that it is required. This review, on the other hand, intends to provide evidence on the factors that influence the usage of modern contraception in Sub-Saharan Africa.

1.2 Review Question

- i. What is the use of modern contraceptive in sub-Saharan Africa?
- ii. What are the individual factors influencing modern contraceptive use in sub-Saharan Africa?
- iii. What are the socio economic factors influencing modern contraceptive use in sub-Saharan Africa?



1.3 Aim

The primary aim of this review is the factors influencing modern contraceptive use in sub-Saharan Africa.

1.4 Objectives

The secondary objectives of this review include;

- i. To identify the use of modern contraceptive in sub-Saharan Africa.
- ii. To review the individual factors influencing modern contraceptive use in sub-Saharan Africa.
- iii. To review the socio economic factors influencing modern contraceptive use in sub-Saharan Africa.

2.0 Epistemological Approach

A publication by Mackenzie and Knipe (2016) posited that the paradigm on which the researcher based his methodology and established such evidence must be clearly articulated and understood for any research to be considered high quality. Understanding the paradigm, which is the point of view from which natural events are observed or researched, and which might impact the researcher's attitude and methods, cannot be stressed (Bowling, 2014). This will ensure that the researcher's own beliefs or philosophy have no impact on the quality of the investigation or the strength of the evidence presented (Saunders *et al.*, 2019). The technique used clarifies how the study was conducted and how the research problem was handled. Ideologies like ontology and epistemology serve as foundations for setting the paradigms of research processes (Mackenzie and Knipe, 2016). While ontology is concerned with how the researcher perceives reality, epistemology is concerned with how these observable realities are assessed and the distinctions between justified beliefs and opinions (Flick, 2015). A quantitative research approach is frequently objective, as opposed to a qualitative research methodology that adheres to the constructivism paradigm, which views knowledge as socially created (Parahoo, 2014).

There are two major paradigms in research: positivism and the



naturalistic/interpretive paradigm. The naturalistic paradigm analyzes, interprets, and establishes evidence of observable occurrences subjectively and inductively using qualitatively created data, such as interviews (O'leary, 2004). This perspective does not conform to the current study hence; the choice of a positivist-quantitative approach will be adopted. Because logical reasoning will be employed to construct a hypothesis, which will then be evaluated using a globally accepted systematic technique, positivism was declared a suitable paradigm for this study (Kaboub, 2008). Science, in this view, should be value-free, and study should rationally strive to explain and predict facts. Natural events must also be studied using quantifiable and specified tools, and the researcher must be self-contained.

Nonetheless, research aims to develop or adopts a theoretical position and collects data to prove or reject it. Gough, (2015) suggested that the process of supporting a theory could entail empirical hypothesis testing (quantitative) or an explanatory and interactive approach (qualitative). The controversy about the better of the two approaches has lingered over time, leading to paradigm disagreements between constructivists and positivists (Eyisi, 2016). Quantitative approach to research involves gathering facts using data collection tools (e.g questionnaires, interviews) and statistically analysing them to answer questions such as who, what, where and how much which is generalisable (Apuke, 2017). The limitation of this approach is that broad underlying interpretations are left uncovered because data collection is done at a particular period of time (Rahman, 2016). According to McCusker and Gunaydin(2015), a qualitative method does not attempt to generalize; rather, it is an in-depth investigation of data produced from a small sample that is frequently context-specific. Instead of measuring facts, this technique investigates words and phenomena in order to construct a hypothesis rather than test one (Yilmaz, 2013). A major drawback of the qualitative technique is that the findings drawn from it do not apply to a bigger population (McCusker and Gunaydin, 2015). A systematic literature review employing a quantitative technique is suited for this review issue since it tries to link findings to a wide group.

2.2 Inclusion Criteria

According to Flick (2015), inclusion criteria are the features or characteristics of potential participants that are regarded suitable for inclusion in a research.



Nonetheless, the following would be included in the review's inclusion criteria:

- i. Articles or primary studies published from 2010-2020.
- ii. Peer reviewed studies or findings that addressed enablers, interventions and barriers towards modern contraception in Sub-Saharan Africa.
- iii. Studies published in English
- iv. Studies measuring enabling factors or barriers to modern contraceptive utilization and uptake.
- v. Studies with quantitative, mixed methods and qualitative approach.
- vi. Studies conducted in Sub –Saharan Africa among any group addressing the research questions of these review.

2.3 Exclusion Criteria

The exclusion criteria for the study are'

- i. Studies that seem to be cross country with regions seen to be outside Sub-Saharan Africa.
- ii. Studies that involved modern contraception use among HIV positive patients.
- iii. Studies not published in English Language.
- iv. Studies focusing on modern contraception for prevention of infections.
- v. Studies that posit insufficiency in reporting design and methods utilized.

2.4 Identification of Eligible Studies

2.4.1 Electronic Resource

To gather evidence on factors influencing modern contraceptive use in sub-Saharan Africa, the following electronic databases will be searched:

- PubMed
- Goggle Scholar

- MEDLINE
- CINAHL
- African Journals Online

These databases will be chosen because they represent some of the most regularly used databases for identifying health care characteristics and utilization, as well as for searching research by health professionals. Searching the African Journal online database became critical since it would aid in identifying research completed and focused on Sub-Saharan Africa. All of the articles that result will be reviewed, and those that are eligible will be included in the review.

2.4.2 Search Strategy

The above-mentioned electronic database search was built utilizing appropriate keyword combinations (Penedones *et al.*, 2019; Aromataris and Riitano, 2014), as shown in Appendix A. The right Boolean operators were applied with the right search keywords. Each search domain was individually searched, with the Boolean operator 'OR' being used to join similar search words and synonyms within each domain. The domains were then joined together using the 'AND' Boolean operator. Controlled vocabulary, such as Medical Subject Headings (MeSH or indexing words), was employed in the electronic search standards, depending on the database in use. Aromataris and Riitano (2014) suggested that the asterisk (*) be used for truncation to retrieve any alternative ends. Furthermore, depending on the database functionality, wildcards such as question mark (?) and hash (#) were used to replace one or no characters, or substitute one or more characters, respectively.

Search terms utilized for the study

((Factors) OR (Determinants) OR (Enablers) OR (Barriers) AND (Use) OR (Uptake) OR (Utiliz*) AND (Contracept*) OR ("Modern Contracept*") OR ("Contemporary Contracept*") AND ("Sub-Saharan Africa"), OR (Africa)) The studies will be checked for eligibility and the methodological quality will be assessed.

2.5 Data Collection and Analysis

2.5.1 Selection of Studies



Online search of the databases will be conducted and search results from each database will be documented. Search results will be transferred to electronic reference management software (RefWorks). This process helps to import, organize, and manage citations and related full texts; thus, provide access to import references and reference style of choice from a variety of databases, create in-text citations and bibliographies (Ivey and Crum, 2018). As suggested by Aromataris and Riitano, (2014), duplicate articles within and between the databases will be identified and removed. Further screening of the titles and abstracts against eligibility criteria will be carried out. Screening full texts of studies identified as potentially relevant at the title and abstract screening stage for eligibility criteria will also be implemented. In order to uncover any more relevant data, a search of the reference lists of the included papers will be done. To reduce the chances of research being ignored, the screening step is carried out by independent reviewers. This is also necessary to avoid misapplication or misunderstanding of qualifying criteria, as well as the rejection of relevant research during the screening process as a result of a single screener's random error and prejudice. Due to the nature of this review being an academic dissertation, the screening method will be carried out by a single reviewer. This reduced the time and resources that two reviewers would have required (Morton *et al.*, 2011).

2.6 Data Extraction

Reading the papers included in the review and extracting data/information relevant to the subject of interest will be used to extract data (Munn *et al.*, 2014). Data extraction is critical because it presents research in an objective and correct way, making it easier to synthesize, identify numerical data, and get information to aid in the risk of bias evaluation. According to Li *et al.*, (2019), the standardized data extraction form can be in manual form as paper, automated in computerized format, commercial, or custom made data system, and can be as lengthy or as short as needed with coding, especially if a quantitative analysis is required. Name of author and year of publication, study groups (inclusion and exclusion criteria), participant characteristics (age, ethnicity, and educational level, socioeconomic status), enabling factors and barriers of significance to the review question, and specific objectives will all included be in the electronic tool (Excel spreadsheet) created for this review.



2.7 Analysis and Synthesis

The process of synthesizing data from various studies to develop a conclusion about a body of evidence and answer the research question is known as synthesis (McKenzie *et al.*, 2021). Because there may be methodological discrepancies in the specifics of included research, it's critical to look for heterogeneity in study findings (McKenzie *et al.*, 2021). Because the approach in this review is varied, statistical meta-analysis will not be performed. Furthermore, unlike meta-analysis, narrative synthesis is an inherently more subjective process (McKenzie *et al.*, 2021), As a result, it aids in the integration of research included in a review. Textual and tabular summaries of the findings are used in this technique, which is similar to storytelling (Bettany-Saltikov, 2016). To eliminate the possibility of bias, the approach is rigorous and open.

Timeline

The study would utilize the timeline represented in table 2 below. Due to constraints such as finance, hectic academic schedules and time resources posing as limitations, it is imperative for this study to be guided in a time plan.

S/n	Activity	Timeframe	Personnel responsible
1	Development and submission of Review Proposal	1 month	Researcher
2	Proposal Defense	1 day	Researcher
3	Literature Search	1 week	Researcher
4	Data Extraction	1 week	Researcher
5	Data Synthesis	1 Month	Researcher
6	Methodological Assessment of Included Studies	3 days	Researcher
8	analysis of data and complete review writing	1 month	Researcher
	TOTAL	16 weeks	



Dissemination of Findings

The results of this investigation will be published in the databases listed below.

- i. Academic Editorials
- ii. University Research Leaflets
- iii. Journals
- iv. University online and offline repository for future researchers, and so on.

This would be accomplished by working with the study's academic supervisor, writing to numerous funding agencies requesting waivers in academic editorials, and incorporating relevant stakeholders in the research.

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