

REVIEW ARTICLE

Contraceptive unmet needs in low and middle-income countries: A systematic review

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Abstract

Contraceptive use in sub-Saharan Africa remains low, with a minimal rise from 23.6% to 28.5% between 2008 and 2015. Unmet needs for contraception remain a public health concern in low and middle-income countries. The objectives of this systematic review were to explore the perceptions of women and men accessing family planning services; and the perceptions of healthcare professionals delivering family planning services in low and middle-income countries. Literature search was limited to studies published in English in the period from 2000 to 2017. Thirty studies included in this review were identified from CINAHL, BNI, EMBASE, PsycINFO, MIDIRS and MEDLINE databases. A narrative synthesis, was adopted to synthesise the findings. Findings indicate a lack of awareness of contraception amongst women and men. Experienced and perceived side effects of contraceptives influence contraceptive continuation and discontinuation. Evidence from this review points to the need for awareness of contraception to dispel myths and misperceptions regarding modern contraception. (*Afr J Reprod Health 2021; 25[2]: 162-170*).

Keywords: Family planning, contraception, experiences, literature review, narrative synthesis

Résumé

L'utilisation de contraceptifs en Afrique subsaharienne reste faible, avec une augmentation minimale de 23,6% à 28,5% entre 2008 et 2015. Les besoins non satisfaits en matière de contraception restent un problème de santé publique dans les pays à revenu faible et intermédiaire. Les objectifs de cette revue systématique étaient d'explorer les perceptions des femmes et des hommes accédant aux services de planification familiale; et les perceptions des professionnels de la santé fournissant des services de planification familiale dans les pays à revenu faible et intermédiaire. La recherche documentaire a été limitée aux études publiées en anglais entre 2000 et 2017. Trente études incluses dans cette revue ont été identifiées à partir des bases de données CINAHL, BNI, EMBASE, PsycINFO, MIDIRS et MEDLINE. Une synthèse narrative a été adoptée pour synthétiser les résultats. Les résultats indiquent une méconnaissance de la contraception chez les femmes et les hommes. Les effets secondaires expérimentés et perçus des contraceptifs influencent la poursuite et l'arrêt de la contraception. Les preuves de cette revue indiquent la nécessité de prendre conscience de la contraception pour dissiper les mythes et les idées fausses concernant la contraception moderne. (*Afr J Reprod Health 2021; 25[2]: 162-170*).

Mots-clés: Planification familiale, contraception, expériences, revue de la littérature, synthèse narrative

Introduction

Family planning is a strategy that is adopted by families that allows them to decide their desired number of children and at what time intervals¹. This is mainly achieved through the use of modern family planning methods such as hormonal contraceptives. Family planning methods are widely accessed through trained healthcare professionals such as nurses, midwives, clinicians and community health workers². The health benefits of using family planning methods include averting unintended pregnancies, unsafe abortions and a reduction in infant mortality³. Globally, the

use of family planning methods has slightly risen from 54% in 1990 to 57.4% in 2015³. Moreover, there are rising rates of unmet need for contraception which have caused concern to the global health community⁴. Likewise, contraceptive use in sub-Saharan Africa remains low, with a minimal rise from 23.6% to 28.5% between 2008 and 2015³.

Despite the known benefits of contraceptive use, unmet need for family planning remains high. Unmet need is when women who are capable of reproducing but desire not to have a child, are not using any modern contraceptive methods⁵. Globally, approximately 12% of women

have an unmet need of family planning⁶. This figure includes approximately 225 million women in low and middle income countries³. Coupled with the high unmet need for contraception, fertility rates remain unacceptably high in Sub-Saharan Africa⁷. Some of the contributing factors to low utilisation of contraception in low and middle-income countries include limited access to contraceptives and economical barriers⁸.

In response to the needs for contraception, international policies increasingly recognise the need to address this deficit through landmark events, such as, the 1994 Cairo International Conference and Development (ICPD) and the 2000 London summit on family planning⁹.

The ICPD summit in Cairo made recommendations for governments to make sexual and reproductive health services, including family planning, universally accessible to all individuals through primary health care systems¹⁰. Therefore, addressing the needs for contraception remains an unfinished agenda to the global community due to continuing unavailability of the service¹¹. Hence, there is a need to conduct a literature review to identify a knowledge base regarding the unmet needs for contraception in developing countries and identify gaps in the evidence base for further exploration. The general review question was: how do women experience accessing family planning services? Specific review questions included: what are the barriers and facilitators for women accessing family planning services? What are the women's perceptions of family planning services? What are the men's perceptions of family planning services? What are the perceptions of healthcare workers delivering family planning services to the women? Therefore, this review was conducted to assess the evidence from studies on experiences of women, men and healthcare workers on use and non-use of modern family planning methods in low and middle-income countries.

Methods

A comprehensive literature search of Cumulative Index to Nursing and Allied Health Literature (CINAHL), Excerpta Medica database (EMBASE), database of abstracts of literature in the field of psychology (PsycINFO), Midwives Information and Resource Service (MIDIRS), Medical Literature Analysis and Retrieval System Online (MEDLINE), and British Nursing Index (BNI) was

conducted to identify relevant studies published between 1 January 2000 and 28th February 2017. This comprehensive literature search was updated on 20th July, 2019. Manual searches of individual journals such as Journal of Family Planning and Reproductive Health and Studies in Family Planning were undertaken. Other studies were identified through hand searching the reference lists of relevant studies. Studies conducted in low and middle-income countries, including Sub-Saharan Africa were included in this review. Low resource countries have a gross national income (GNI) capita of \$4035 or less¹². Preference for studies published in English was ultimate because there were no resources for translation. Efforts were made to contact authors for missing data in their studies. The review includes qualitative research and mixed-method studies that explored experiences of women, men and healthcare workers regarding access to family planning services. Studies that focused on qualitative data including, but not limited to, designs underpinned by grounded theory, phenomenology and ethnography were included.

The literature search strings were developed using the SPIDER tool¹³; a tool which can include both qualitative and mixed-methods research studies. SPIDER is an acronym that represents sample, phenomenon of interest, design, evaluation and research type. Keywords used in the search were 'family planning', 'contraception', 'women' and 'health care professionals'. Search strings were developed and linked together with Boolean operators 'OR'/'AND'. Boolean operator 'OR' was used to combine searches of the same concept or synonyms; whilst Boolean operator 'AND' was used to combine two or more searches of different concepts or synonyms¹⁴. Using the SPIDER tool (Table 1), a search strategy was developed to identify potential papers for the review. Therefore, the review included qualitative research and mixed-method studies that explored experiences of women, men and healthcare workers regarding access to family planning services.

A quality appraisal tool was used to assess the abstract and title, introduction and aims, method and data, sampling, data analysis, ethics and bias, findings or results, transferability/generalisability and implications and usefulness of each study¹⁷. The tool allows for appraisal of evidence from studies with disparate or heterogeneous designs. Each aspect of the criteria had a range of scores

Table 1: SPIDER search strategy¹³

Sample	Wom?n* OR mother* OR maternal* OR m?n* OR father* OR paternal* OR nurs* OR midw* OR clinician* OR health care assistant* OR family planning provider*
Phenomenon of Interest	birth control* OR pregnancy termination* OR contracepti* OR family planning* OR condom* OR oral contraceptive* OR pill* OR hormonal implants* OR intrauterine device* OR barrier method* OR depo- provera* OR spermicide* OR spermicidal*
Design	questionnaire* OR survey* OR interview* OR focus group* OR case stud* OR observ*
Evaluation	view* OR experience* OR opinion* OR attitude* OR perce* OR belie* OR feel* OR know* OR understand*
Research type	qualitative OR mixed method* Qualitative and mixed methods search using [S AND P of I] AND [D OR E OR R]

from good, fair, poor to very poor. In accordance to the tool, a study which obtained more than 18 out of 36 points was included in the review. The higher the score the more rigorously the study was conducted. This criterion and scoring system were applied consistently to each study. A form was devised for data extraction and comprised of a table of study characteristics namely: author and year of publication, title, research aim and design, sampling, data collection methods and analysis, main findings and strengths and limitations of the study. Each article was independently assessed and scored for quality and robustness. The first author conducted a literature search, critical appraisal, data extraction and synthesis of findings. The other authors (AC and TL) reviewed the whole process of literature search, critical appraisal and data extraction thereby minimising biased judgements on the studies identified. Bias was minimised by the use of Hawker tool¹⁷ as well as a reproducible search strategy. A narrative synthesis, which is interpretive in nature, was adopted to synthesise primary studies¹⁸. Each study was read in full whilst noting key data. Thereafter, a tabulation of details of the study, which included characteristics of participants, sampling, data collection, analysis and findings, was done. Thus, the process of synthesising the findings involved organising data, describing the findings, exploring the relationships within and amongst the studies, interpreting findings and providing explanations for those findings¹⁹. Similar data from the studies were identified and merged into inclusive themes.

Results

A total of 4831 potential papers were identified through the searches and then exported to EndNote bibliographic management software. After removing the duplicates, a total of 1086 articles

were returned. Through the process of reviewing and scrutinising the abstracts, 520 articles were relevant to family planning use; whilst 566 studies were excluded because they were not relevant to the topic. Subsequently, 42 full text articles were selected for further assessment based on the inclusion criteria, whilst 478 papers were excluded as they did not meet the inclusion criteria. Ten papers that were either opinion papers or non-empirical research articles were excluded. This meant that 32 papers remained for quality assessment. Two studies were discounted from the selection because they had inadequate details of ethics and bias; minimal details about sampling techniques used; and inadequate description of the context of the studies^{15,16}. This meant that they were deemed to be of poor methodological quality as assessed by Hawker *et al.*¹⁷. Hence, thirty articles were read thoroughly and critically assessed by the appraisal checklist. In general, studies scored well with the majority scoring 29 out of 36. The thirty studies that have been included in this review originate from 17 countries namely: Uganda (6 studies); Kenya (6 studies); Ghana (1 study); Ethiopia (2 studies); Malawi (2 studies); Zimbabwe (1 study); Swaziland (1 study); Rwanda (1study); Somalia (1 study); Afghanistan (1 study); Pakistan (1 study); South Africa (1 study); Tanzania (1 study); Madagascar (1 study); Nigeria (1 study); India (1 study); 1 multi-country study from Uganda and India and another from India, Nepal and Nigeria. This signifies that the field of family planning use is an issue of international concern. A total of 26 studies were qualitative whilst four studies utilised mixed methods approaches. Studies were conducted in different settings such as health service delivery points, community settings, teaching hospitals and nursing schools. Synthesis of data generated three themes namely: women’s perceptions of family planning methods, healthcare

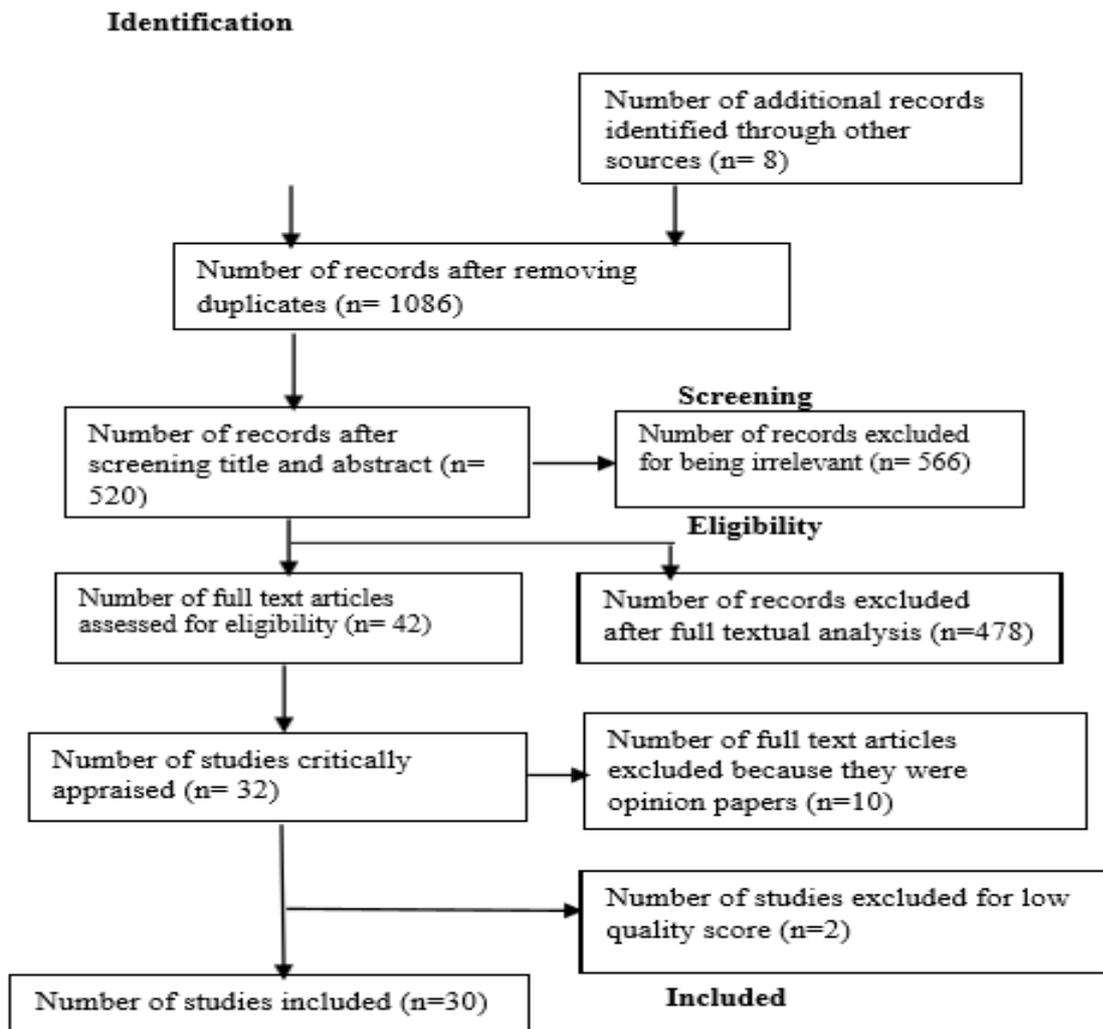


Figure 1: Flow of information through the different phases of the review

provider perspectives on family planning and men’s perceptions of family planning services. Figure 1 illustrates the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) chart outlining the flow of information through the distinct phases of the review²⁰. Table 2 outlines a summary of results from the included studies.

Discussion

Women’s perceptions of family planning services

Evidence from this review indicates that most women participants in diverse studies showed

overwhelming positive perceptions of family planning services²⁹⁻³³. Across these studies, women would identify modern contraceptive methods such as Depo-Provera, implants, tubal ligation, condoms and pills. Similarly, other women alluded to being aware of natural family planning methods such as counting safe days, withdrawal method, abstinence and exclusive breastfeeding²¹⁻²⁴. Thus, the use of contraception was perceived to avert unwanted pregnancies, improve the economic lifestyles of families and communities, since smaller families can afford good education for their children^{21,22,29-31}. The positive impression towards contraception enabled women to continue using contraception to delay or stop childbearing. With the positive perception of contraceptives, some

women intentionally concealed the use of Depo-Provera injection to protect their health and the plight of their children⁴³. Besides, some women were motivated to use contraception because of the health education sessions that were being provided by healthcare workers during routine family planning services provision^{26,42}. This is consistent with recent evidence which indicates that women in Ethiopia are counselled by family planning providers on various family planning methods and they have confidence in contraceptives in averting unwanted pregnancies so that they remain healthy⁵³. Some women who experienced amenorrhoea with contraceptive use, considered themselves to be healthy; able to go for prayers; do household chores and were not secluded during religious gatherings²⁹. This experience facilitated continuation of contraceptive use.

Although women were motivated to use contraception, negative accounts with modern contraceptive methods dominated women's poor perceptions of family planning use. This review has revealed that negative side effects of modern contraceptives such as changes to the menstrual cycle³³, excessive bleeding, spotting and amenorrhoea³⁸; weight gain or weight loss³⁴⁻³⁶ and decreased interest in sexual intercourse²⁸ complicated continued use of modern family planning methods even in women who had an expressed need for contraception^{21,34,36}. The negative influence of contraceptive side effects on continuation of use has also been reported in recent studies done elsewhere^{51,52}. In these studies, women have poor perceptions of contraceptives due to the negative health consequences that ensue after using family planning methods. Commonly reported effects associated with contraceptive use were irregular menses, weight loss or weight gain, dizziness and absence of menstruation^{51,52}. Current clinical guidance from world health organisation¹¹ recommend that family planning providers should comprehensively counsel family planning clients on the expected side-effects of contraceptives to promote understanding and adherence. Counselling is recommended so that women should recognise side effects of contraceptives when they arise and seek further care. Thus, side effects of contraceptives are real and they have an influence on contraceptive decisions of women. A unique from this review was that women could not access contraceptives when they came to the clinic not in their menses in South Africa would not access

family planning service if they reported to the clinic not in menses⁴⁹. This created an unnecessary barrier to contraceptive use. This practice contradicts with guidelines by WHO which suggest that a woman can be initiated on contraception when she is reasonably sure she is not pregnant through the use of a pregnancy checklist to rule out pregnancy¹¹.

Men's perceptions of family planning services

This review has established that men in other settings recognised the need for families to use contraception. For instance, a qualitative study conducted in Nigeria with men and women indicated positive perceptions towards the intrauterine contraceptive device (IUCD) and the condoms. Condoms were appraised for offering dual protection from sexually transmitted infections and pregnancy^{29,31,33}. The IUCD was perceived by men and women to be long acting, easy to use, reversible, and has no side effects³³. Men also provided support and permission for women to use contraception. This notion emerged due to the discussion on decision making on family planning issues. Participants reported that their partners also provided financial support for seeking family planning related services, such as treatment for side effects of contraceptives. However, both women and men complained of having reduced sexual pleasure and experienced discomfort whilst using condoms^{29,33}. Similarly, the condom was not favoured by most couples because of the prevalent stigma that the condom is associated with extramarital affairs⁴¹. In Kenya and Uganda, men had personal perceived misconceptions about the safety of contraceptive use^{24,25}. They asserted that the use of contraception would enable a woman to have a deformed baby²⁵ and the majority of men were excluded from participating in family planning programmes²⁴. This indicated that men had poor knowledge of contraceptives which subsequently influenced low uptake and compliance to contraception by their spouses^{24,25}. These misconceptions have also been supported by the work of others linking contraceptive use with permanent infertility, severe weight loss, uterine fibroids, and development of cancer of the abdomen^{52,54}. However, these misperceptions have not been scientifically proven. Traditionally, men had a strong influence on contraceptive use, non-use and fertility desires. Men were the decision makers in terms of family planning use; meaning

that, men decided whether the woman was to use a method of contraception or not. Additionally, men decided on the number of children to have in a family. This practice was part of tradition and custom in many societies. Accordingly, some men could not support their partners to use contraception. Consequently, women had to respect men's decisions to have more children to maintain their marriages³⁸. Nonetheless, findings from this study provide recommendations for family planning programmes to address the prevailing gender norms that lead to gender inequalities on family planning decision making.

Healthcare provider perspectives on family planning services

In this review, the healthcare delivery system was noted to positively influence contraceptive service provision. Health care workers reported on the widespread availability of family planning commodities at health facilities. Availability of contraceptives motivated healthcare workers to provide family planning services^{34,35,47}. Some participants were motivated by health care providers to use condoms after testing positive for HIV to prevent pregnancy and reinfection^{35,43,48}. Healthcare providers considered the condom as the method of choice for people living with HIV and AIDS to prevent HIV reinfection. However, other participants expressed concern on their capacity to use condoms consistently for long term use. A qualitative study in Uganda reported that the professional advice that women got from health care providers significantly shaped decisions for family planning use³⁴. Healthcare providers were counselling women on the available contraceptives including their possible side effects.

In India healthcare workers had positive perceptions towards contraceptives and they maintained their stance in contraceptive provision as being guides and not decision makers regarding choices of contraception to use⁴⁷. This was done during routine family planning counselling and motivation talks. Similarly, healthcare providers in Malawi and Kenya^{42,49} reported positive perceptions towards long-acting contraceptives (LARCs) in providing long-term pregnancy prevention. This prevented frequent visits to the family planning clinic. However, healthcare workers reported that they were understaffed, such that the same provider on a shift was expected to

attend to antenatal women, women in labour and other patients in the paediatric ward^{42,49}. Some providers in Malawi lacked expertise provide LARCs. Additionally, it is reported that there was no equipment for sterilising IUCD instruments⁴². Consequently, participants were faced with long waiting times and unavailability of the contraceptive methods. These findings mirror recent research conducted in Ethiopia and Nepal where some healthcare workers acknowledge lacking training and expertise to offer implants and IUCDs to women^{53,55}. This review recommends the need for governments to invest in building the capacity of healthcare workers to increase their expertise and enthusiasm to provide LARCs. In India, all family planning methods are readily available at no cost at all⁴⁷. Nevertheless, some providers unnecessarily restricted the provision of implants, injectables, IUCD and sterilisation based on a woman's maximum age of 40 years and marital status. However, there were fewer restrictions around the use of pills and condoms. This is against the guidelines provided by the WHO which state that all women can safely use any method of contraception without restrictions¹¹. Therefore, this review provides suggestions on the need for providers to be abreast with current family planning guidelines to minimise missed opportunities for contraceptive use.

In summary, this literature review has provided an understanding of the experiences of women and health care workers for use and non-use of family planning methods in resource limited countries. It has been understood that awareness of modern contraceptive methods has both a negative and positive influence on contraceptive use and non-use. Experienced and perceived side effects of contraceptives also influence contraceptive continuation and discontinuation. Influential people such as healthcare workers and partners also play a critical role in the uptake of contraceptives.

Strengths and Limitations

One of the strengths of this review was the extensive and systematic search of literature. This offered a transparent approach to collecting data, which could be reproduced by other researchers. However, this review considered only studies published in English due to lack of resources for translation. This may limit the extent to which findings from this review can be transferable to all

low- and middle-income countries. Nonetheless, findings from this review have implications for clinical practice and policy. The review recommends access to contraceptive health education to promote awareness amongst women and men needing contraception. This would also help to dispel myths and misperceptions that individuals hold regarding contraception. The authors also recommend the need for healthcare workers to promote the use of other family planning methods as well as condoms to people living with HIV so that they are protected from pregnancy and HIV re-infection. Moreover, healthcare workers ought not to impose age restrictions on use of contraceptive methods. With the literature base reviewed, there is a paucity of reported evidence regarding the experiences of women, men and healthcare professionals for use and non-use of family planning in Malawi. Therefore, future research needs to address this unexplored area to develop a body of knowledge that would inform future strategies to promote contraceptive use. Further, this review suggests the need to explore the perspectives of young people regarding constraints and motivations regarding contraceptive use in resource limited settings.

Conclusion

The review has indicated that unmet needs for contraception remain a public health issue. It highlights the constraints and motivators for contraceptive use amongst women, men and healthcare workers from developing countries. The majority of women had positive perceptions of contraceptive services as they wanted to avert unwanted pregnancies or delay childbearing. Although men were decision makers on the number of children to have, some provided support to their partners to seek family planning services. Health care workers were influential in guiding women to make family planning decisions. However, some providers felt challenged to provide long acting contraceptives due to lack of expertise.

Competing interests

There are no conflicts of interests to declare.

Contribution of Authors

IC conceptualised the review. All three authors (IC, AC, TL) developed the objectives of the review. IC

and AC developed the literature search strategy. Quality appraisal of identified studies as well as synthesis of the findings of this review was done by IC and confirmed by AC and TL. The preparation of this manuscript was done by IC. All three authors reviewed and approved the final copy of the manuscript.

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