



Factors to using non-medical contraceptive methods in sub-saharan africa: an umbrella review

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Abstract

Introduction: Non-medical contraceptive methods, including natural methods, traditional methods, and barrier methods, have long been used worldwide to regulate fertility. With the advent of modern methods, these methods have fallen into disuse due to their low effectiveness. However, the use of these methods is resurfacing. No systematic review of the factors influencing the use of these methods has been found in the scientific literature. This study aims to identify the factors influencing the use of these methods in the sub-Saharan context.

Methods: This was an umbrella review. We conducted a literature search in the PubMed, Embase, CINHAL and Web of Science databases. Two independent authors made the selection. Three authors assessed the quality of included studies using the AMSTAR tool. We then carried out a narrative synthesis by grouping the factors according to the socio-ecological model.

Results: Seven (7) articles met the eligibility criteria. The main individual factors were age, medical history, standard of living and perceived benefits. Interpersonal factors included religious beliefs and spousal influence. Structural factors included the availability and accessibility of these methods.

Conclusion: The use of non-medical contraceptive methods poses a challenge for family planning programs. Communication strategies that include spouses and training for healthcare staff on these methods are needed. In addition, family planning providers should include advice on non-medical methods, not just medical methods, in order to better support women who choose these methods. This could help women to take greater control of their bodies in managing their fertility.

Keywords: natural family planning, female, condom, Burkina-Faso

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Résumé

Introduction : Les méthodes contraceptives non-médicales qui comprennent les méthodes naturelles, les méthodes traditionnelles et les méthodes de barrière, sont utilisées depuis longtemps dans le monde entier pour réguler la fertilité. Avec l'avènement des méthodes modernes, ces méthodes sont tombées en désuétude en raison de leur faible efficacité. Cependant, l'utilisation de ces méthodes refait surface. Aucune étude systématique des facteurs influençant l'utilisation de ces méthodes n'a été trouvée dans la littérature scientifique. Cette étude vise à identifier les facteurs influençant l'utilisation de ces méthodes dans le contexte subsaharien.

Méthodologie : Il s'agit d'une revue systématique du type revue de revues. Nous avons effectué une recherche documentaire dans les bases de données PubMed, Embase, CINAHL et Web of Science. Deux auteurs indépendants ont procédé à la sélection. Trois auteurs ont évalué la qualité des études incluses à l'aide de l'outil AMSTAR. Nous avons ensuite réalisé une synthèse narrative en regroupant les facteurs selon le modèle socio-écologique.

Résultats : Sept (7) articles répondaient aux critères d'éligibilité. Les principaux facteurs individuels étaient l'âge, les antécédents médicaux, le niveau de vie et les avantages perçus. Les facteurs interpersonnels comprenaient les croyances religieuses et l'influence du conjoint. Les facteurs structurels comprenaient la disponibilité et l'accessibilité de ces méthodes

Conclusion : L'utilisation de méthodes contraceptives non médicales constitue un défi pour les programmes de planning familial. Des stratégies de communication incluant les conjoints, la formation du personnel de santé sur ces méthodes sont nécessaires. En outre, les prestataires de planning familial devraient intégrer des conseils sur les méthodes non médicales, et pas seulement sur les méthodes médicales afin de mieux accompagner les femmes qui font le choix de ces méthodes. Cela pourrait aider les femmes à mieux s'approprier leur corps dans la gestion de leur fertilité.

Mots-clés : planification familiale naturelle, femme, préservatif, Burkina-Faso

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Introduction

Contraception is essential for sustainable human development. The debate around this theme is at the heart of national, subregional and international family planning programs. One of the objectives of the Sustainable Development Goals is to promote reproductive health by adopting family planning as a strategy.(1). There are several classifications of contraceptive methods. There are natural methods, traditional methods and so-called modern methods. In 2015, the World Health Organization distinguished between traditional and modern methods(2). However, the limits of this classification remain unclear. Indeed, certain methods considered modern for certain organizations are still traditional for others.(2). However, these are often classified in programs as unmet needs. This leads to difficulties in assessing family planning indicators. In the present study, we consider the perspective of contrasting medical and non-medical methods. Non-medical contraceptive methods refer to birth control techniques that do not involve medications or medical procedures, such as condoms. Traditional contraceptive methods are those that have been used for a long time, such as the rhythm method. Natural contraceptive methods are techniques that rely on understanding a woman's menstrual cycle and fertility, such as basal body temperature. Research on non-medical contraceptive methods has identified various factors influencing their use, ranging from fear of side effects to lack of awareness of the benefits of contraception.(3)from so-called modern methods to social norms and gender relations(4.5). These methods have long helped regulate fertility. However, they fell out of use before the advent of the birth control pill. The scientific literature on the subject reveals a resurgence in the use of these methods(5-8)sometimes classified as an unmet need(9). Systematic reviews have been carried out on these contraceptive methods. Some focused on traditional methods. Others(ten)on natural methods(11)and barrier methods such as condoms(12.13).Noa systematic review of non-medical contraceptive methods was found in the literature. Thus, we propose to conduct a review of the factors involved in the use of non-medical contraceptive methods to fill this gap. This study aims to examine the factors that influence women's decisions to use non-medical methods of contraception in the context of sub-Saharan Africa. More specifically, the study aims to identify individual, interpersonal, organisational and community factors in the use of non-medical contraceptive methods.

Methods

This systematic review was conducted as part of a much larger study examining the determinants of non-medical contraceptive method use among women and men in sub-Saharan Africa. It is a general review or review of reviews which includes several types of reviews such as systematic reviews, scoping reviews, meta-analyses, literature reviews and rapid reviews. We developed a study protocol which was registered with PROSPERO under registration number: CRD42023470218. Preferred reporting items for systematic reviews and meta-analyses (PRISMA)(14) was used for the review process.

Search strategy

Five main databases were searched for published reviews: Embase, Google Scholars, CINHALL, PUBMED, Global Health and SCOPUS. We applied the PICO (Population, Phenomenon of Interest, Comparison, Outcome, and Parameter) format to guide our search and used multiple terms and combinations with MeSH terms to obtain related articles. These were imported into Zotero to remove duplicates and then transferred to Rayyan for actual selection.

Selection of studies

A total of 726 articles were generated from the different databases using the search strategy. The selection was carried out independently by each of the researchers involved (NB, AK) on all the articles obtained. We considered the following eligibility criteria:

Population: the population studied here consisted of women or men involved in the use of non-medical contraceptive methods.

Interest: the phenomenon of interest in this review was that of non-medical contraceptives. These are contraceptive methods that do not require medical intervention or the advice of a healthcare provider before they can be used. In this study, we mainly considered female and male condoms, the withdrawal method, the rhythm or calendar method, and the lactational amenorrhea method, abstinence.

Comparison: this study does not involve any comparison.

Result: We considered acceptability, use, knowledge, reason for use and information about non-medical contraceptive methods as the outcome of this review.

Setting: The study area considered for our review was sub-Saharan Africa.

Type of review: We included systematic reviews, literature reviews, scoping reviews, meta-analyses and rapid reviews.

Additional inclusion criteria such as publication time interval were considered. Included review articles must have been published between 2011 and 2022. Articles that did not meet all of the criteria mentioned above were excluded.

Using Rayyan software, we made a selection of articles in three steps. This was first, based on the titles and the remaining 17 articles, after reading the full text. This allowed us to remove 10 additional articles that were not entirely eligible for inclusion. The final selection step was carried out during quality assessment, after which the 7 articles were retained for data extraction. The final selection process is summarized in the flowchart (Figure 1).

Quality assessment

We used the Tool for Assessing the Methodological Quality of Systematic Reviews (AMSTAR 2).(15)to assess the quality of the included studies. This is an enhanced 16-item checklist used to assess the quality of a review, awarding one point for each criterion met. It has a 3-tier rating system based on the number of points each article receives: a score of 8 to 11 is considered high quality, meaning it has minor or no methodological limitations. A score of 4 to 7 corresponds to medium quality, meaning it has moderate methodological limitations, while a score of 0 to 3 corresponds to low quality, meaning it has moderate methodological limitations. significant methodological limitations. Three raters (NB, PN, DS) conducted the assessment independently, and a consensus rating was established after comparing individual assessment scores.

Data Extraction

We developed a standardized data extraction form, piloted it, and used it to extract data from the full texts of the included journals. Extracted data used to categorize journal articles included first author, publication year, language, journal type, rationale, objectives, eligibility criteria, list evaluation results AMSTAR review, studies used in each review (number of studies screened, assessed for eligibility and included), interventions, populations, settings, results, study designs and main findings.

We piloted the data extraction process using two articles from the included studies. All members of the review team reviewed them. A meeting was then held to ensure that all members of the review team had the same understanding of the information to be extracted. The full texts of the included journals were distributed equally and randomly among journal members to minimize bias. For each article, data were extracted systematically and reported on the data extraction form. Articles that did not meet the

inclusion criteria were reported along with the reasons for their exclusion. Another member then cross-referenced all the articles reviewed by one member to agree on the selection.

Data synthesis

We used a technique based on a narrative approach to synthesize our data. First, a systematic narrative synthesis was conducted using the information as reported in the study characteristics. We then used the socio-ecological model (SEM) to describe the different factors of use of non-medical contraceptive methods. SEM is a framework that examines the multiple effects and interdependence of environmental, contextual, and social factors on individual behavior.(16). Since many public health challenges are too complex to be well understood and addressed from single-level analyses, SEM contributes to the best overall approach by including many levels of influence to make an impact. on health outcomes and behaviors. The levels of influence in SEM include intrapersonal and interpersonal factors, organizational factors, and structural factors.

Results

Study characteristics

Of the 7 studies included in the synthesis, 5/7 (71%) were systematic reviews and 3/7 included a meta-analysis. Two (29%) reviews were literature reviews. The main characteristics of the studies included in the review are summarized in (Table 1).

Overview of results and types of non-medical contraceptives

Synthesis of the extracted data allowed us to identify the different results for each of the reviews included in our review and the different non-medical family planning methods mentioned. Of the seven studies on our final list, six explicitly mention condoms as the primary and sometimes only non-medical family planning method studied.(17-23) including four studies specifically focused on the female condom(17,18,20,23). Although the latest review does not explicitly talk about condoms, the study focused on natural family planning methods that also include condom use.(22). The included reviews gave different results ranging from condom acceptability, particularly the female condom(17), condom use including associated factors(18), barriers(19), dual use alongside a modern method of family planning(20), to be used at last sexual intercourse (LSI)(21), awareness and use(23)and preferences and motivations for use(22).

Factors for using non-medical family planning methods

Several factors are associated with the use of non-medical family planning methods among the different categories of populations studied in the included reviews. These factors can be grouped according to the different levels of the socio-ecological model: individual, interpersonal and structural levels.

Individual level

- Gender

Gender was considered as a factor in contraceptive use in five of the seven included reviews. These studies primarily focused on the use of the female condom as a non-medical method of family planning. One of the studies found that the majority of women in sub-Saharan Africa accepted female condom use when potential users had access to the device and were exposed to interventions that supported female condom use.(17). Although there is a high level of awareness of female condom use by women in some journals(23), low levels of condom use have been found in several studies(18,20,23). However, men have also been implicated in choosing non-medical family planning methods, particularly when it comes to dual contraceptive use.(20).

- Age

Age has been found to be a factor in condom use in more than one study. High levels of awareness and low levels of female condom use have been described among young women in South Africa.(18). Another study in Ethiopia found that adolescents had poor knowledge about their sexual and reproductive health and easily adopted negative attitudes towards condom use. Also, several barriers to condom use were identified, such as peer stigma, perceptions of reduced pleasure during sexual intercourse with a negative impact on the relationship, and religious beliefs.(19). In a review by Bationo et al., age was associated with the use of natural contraceptive methods such as abstinence, withdrawal from breastfeeding, and herbal medicine.(22).

- Education

Educated, middle-class men were more likely to use condoms, according to a study in Ethiopia.(20). In their review, Bationo et al. also found that many studies had identified education level as a factor in non-medical contraceptive use(22). According to his study, people who attended high school were inclined to practice abstinence as a method of family planning, while people with higher education levels preferred to use traditional non-

medical contraceptive methods. In a study of university students in West, Central, East and Southern Africa, Izu di et al. found that a high proportion of more than half of those surveyed had used a condom the last time they had sex.(21).

- **Socio-economic factors**

Additional socio-economic factors such as poverty level and social rank have been identified as being associated with the decision whether or not to use a natural family planning method such as condoms. Anny Peters et al. mentioned that the affordability of the female condom was a crucial factor for women in sub-Saharan Africa when deciding whether to use it and what type of female condom they would use.(17). Along the same lines, Áine Aventin et al. reported in a systematic review that poverty appeared to be a determining factor in condom use among young women and adolescent girls in southern Africa who had moderate risk perceptions regarding the importance of condom use in their relationships.(19). Another review by Bationo et al. found that wealthier families and wealthier women used traditional, non-medical family planning methods.(22). Shallie and Haffejee said poverty was the main reason why couples in Nigeria did not use the female condom.(23).

- **Health-related issues**

Issues related to the health status of participants in several studies have been highlighted as important considerations in the use of non-medical family planning methods. Fear of having an unwanted pregnancy was one of the most reported health problems in the different reviews included in our study.(17,18,22,23). Another health concern was the risk of contracting sexually transmitted infections (STIs) such as HIV, syphilis and others. This was reported by six of the seven studies included in this review.(17-20,22,23).

- **Perceived benefits**

The acceptability and use of the female condom among women and men in sub-Saharan Africa was influenced by the benefits it provided to its users. Anny Peters et al. reported that 79% of women who were offered the female condom expressed satisfaction after using it for just three months. Additionally, up to 98% of sex workers were satisfied after using it several times.(17). In another study, South African women described using the female condom as a method of providing less discomfort during sexual activity.(18), while Bationo et al. reported that the rhythm technique, which is one of the natural methods of

family planning, has been praised due to its effectiveness in spacing births among participating couples (22).

Interpersonal level

- relationship factors

Several articles in this review describe couple-related elements as playing an important role in the use of nonmedical family planning methods. According to Firoza Haffejee et al., women reported difficulty negotiating female condom use with their partners because partners have a preference for the male condom.(18). Marriage and monogamous relationships have been found to be determinants and facilitators of condom use as a non-medical contraceptive (19). Open discussions and disclosure of HIV status between partners in Ethiopian couples have been found to increase the use of dual contraceptives involving a condom. These couples were four times more likely to use condoms freely during sexual activities, compared to other serodiscordant couples, according to Ayele et al.(20).In addition, natural, non-medical family planning methods have been found to be more widely adopted by couples wishing to space births (22).

- Spiritual beliefs

Religious and other traditional beliefs and customs were associated with non-use of non-medical family planning methods such as the female or male condom in almost half of the studies in this review (19,22,23).

Structural level

- Accessibility

Several studies have reported difficulties in accessing non-medical family planning methods.Firoza Haffejee et al. mentioned that women in South Africa did not know where to access the female condom(18).This accessibility problem was confirmed by another study on adolescents, where accessibility to male and female condoms was made difficult by provider organizations, in order to prevent sexual promiscuity (19).

- Availability

The availability of free condoms was considered important, particularly in rural and low-resource settings.(19). Another study found that the non-use of female condoms observed among Nigerian women could be due to scarcity and, in some places, non-availability in most health facilities.(23).

- Provision of services

Two studies described mention the need to provide and promote services related to the use of non-medical contraceptives, as a key factor promoting their adoption and use. In this sense, Áine Aventin et al. reported that adolescents in southern Africa had positive experiences with youth-friendly services made available to facilitate access to information and education about their sexual and reproductive health.(19). In his criticism, Anny Peters et al. reported that the female condom use may be low due to lack of training on use and poor marketing of the device(17).

Discussion

Main findings

Several factors influence the choice to use non-medical methods. These are grouped into individual, interpersonal and organizational factors. Individual factors include age, gender, perceived benefits, socioeconomic status, and health status. Interpersonal factors come down to power relations within the couple and religious beliefs. Finally, organizational factors include availability, accessibility, and provision of family planning services.

Individual and interpersonal factors

In general, contraceptive practice is influenced by the choice of the spouse. This influence is all the more marked when it comes to the use of non-medical contraceptive methods. For the most part, these methods are demanding and require partner support to be used effectively. Communication is therefore essential to the successful use of these methods. Other studies have reported similar results, placing the gender relationship, and in particular the partner's decision, at the heart of contraceptive choice. For example, the use of non-medical methods strengthens the bond within the couple, because they are well accepted by the partner (24). The present study shows that women with a higher level of education use more non-medical contraceptive methods. This may be because these women know their bodies better since most of these methods require a better understanding of the biology and therefore how a woman's menstrual cycle works. Previous studies have reported similar results. These authors found in their results that women with a high level of education, particularly those with a higher degree (25) and rural women as a whole were significantly less likely to use traditional methods than their urban counterparts.(9,25) are likely to use traditional contraceptive methods. Additionally, women aged 25 to 35 are more likely to use traditional methods.(25)

Organizational factors

Many countries have adopted policies to provide free FP care. However, an increasing return to non-medical methods has been documented. The present study showed that the availability, accessibility and supply of contraceptive methods influence their use. This could be because non-medical methods are experienced and experienced by the users themselves. As such, this situation may be more convenient for users. Other authors have reported similar results. For example, a study by Hulm et al. reported that the cost of contraceptive methods was a significant barrier to modern contraception, which could lead women to adopt other forms of contraception, such as natural methods. (26). In addition, advice on contraceptive methods faces many limitations in the scientific literature. This situation harms the quality of FP care and can constitute an obstacle to the adoption of modern methods.(26). Hence the need for sexual and reproductive health policies and programs to focus on improving the knowledge of health workers and method users about the factors involved in the use of contraceptive methods. In addition, the following factors limit access to contraceptive methods, particularly medical ones:(27). Another study found that the quality of FP services and the availability of contraceptive medications tailored to women's actual needs limited the use of modern contraceptive methods.(28).

Conclusion

This systematic review allowed us to improve our knowledge of the factors involved in the use of non-medical contraceptive methods. These factors act at several levels of the reference model used in the present study. Knowledge of these factors could provide an opportunity for planning programs in the sub-Saharan context. However, the present study has its limitations. Further studies on strategies to support users of non-medical contraceptive methods would make a major contribution to the family planning care delivery landscape.

Limitations

The main limitation lies in the small number of reviews included. Additionally, a larger proportion of these studies focus on male condom use.

Author contribution

All authors have read and approved this research.

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Conflict of interest

The authors declare no conflict of interest

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