

# Contraceptive Dynamics Among Women with Disabilities in Low-and Middle-Income Countries: A Scoping Review Protocol

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## Protocol

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# Abstract

## Introduction

Contraceptive dynamics is the use of contraception, unmet need, discontinuation and/or switching of contraception. Women with disabilities (WWDs) in low- and middle-income countries (LMICs) face a common problem: a low prevalence of contraceptive usage and a high unmet need. Despite the fact that certain studies have been conducted in high-income countries, there is a scarcity of research on the degree of contraceptive method mix, unmet need, contraception discontinuation, and switching among WWDs in LMICs. As a result, the scoping review's goal is to investigate, map available evidence, and identify knowledge gaps on contraceptive dynamics within LMICs WWDs.

## Methods

The scoping review is guided by the six-stage Arksey and O'Malley methodology framework. Published articles will be retrieved from databases such as PubMed (Medline), the Cochrane Library, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Global Health. Grey literature databases will be searched using electronic search engines such as Google scholar, Google, OpenGrey, and Worldcat. In addition, a manual search of reference lists from recognized studies will be conducted, as well as a hand search of the literature. There will be no restrictions on study design or publication year. Two independent reviewers will screen relevant publications, and data will be charted accordingly. The Preferred Reporting Items for Systematic Review and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) checklist and reporting guideline will be used to convey the findings of this scoping review.

## Discussion

When compared to non-disabled women, WWDs had a lower prevalence of contraceptive usage and a higher unmet need in LMICs. This indicates a pervasive issue that could compromise the United Nations (UN) General Assembly Convention article 25, which guarantees PWDs access to SRH services, and make the situation difficult to address. Despite these facts, they are the most marginalized people on the planet. It is critical to map available evidence and identify knowledge gaps in order to do this. As a result, the findings of this scoping review will be significant in terms of the contraceptive dynamic among WWDs in LMICs.

## Registration:

Open Science Framework (OSF), with registration number; DOI/10.17605/OSF.IO/XCKPT.

## Introduction

Disability is defined by the International Classification of Functioning Disability and Health (ICF) as any impairment in body functions and structures, as well as limitations in activity and participation [1]. According to a 2011 report by the World Health Organization (WHO) and the World Bank, around 15% of the world's population has a disability, with many of them disproportionately affected by poverty [2]. People with disabilities (PWDs) make over 80% of the population in LMICs, with 60 million in Africa and 7.7 million in Ethiopia [3, 4]. PWDs make for 12.7 percent, 14.0 percent, and 16.8 percent of the population in Ethiopia's Oromia, Amhara, and South Nations and Nationalities of Peoples (SNNPs) regions, according to regional surveys [5].

PWDs are widely regarded as one of the most marginalized and socially excluded population [6]. Women with disabilities are significantly worse than males with disabilities, as they are the most underprivileged in many underdeveloped nations [7, 8].

Contraceptive dynamics is the use of contraception, unmet need, discontinuation and/or switching of contraception [9]. Contraception access and use are critical for meeting the recently announced Sustainable Development Goals (SDGs) [10]. It is critical to pay attention to contraception services and PWDs' SRH needs in order to preserve and promote their human rights, advance the international development agenda, and construct a truly inclusive society [11]. Because of the marginalization and exclusion of this population from active engagement in society in comparison to their non-disabled counterparts, contraceptive use for WWDs is a concern of all bodies [12].

Because disabled women have limited access to family planning (FP) clinics and have limited access to information and services, they do not utilize the services that FP clinics provide [13]. Although the complete picture of SRH difficulties for PWDs isn't fully evident, it's clear that contraception is a major unmet need [14].

Contraception's involvement in preventing undesired pregnancy and lowering fertility rates can help to reduce chronic poverty and hunger, increase access to quality education, improve gender equality, improve maternal health, and reduce childhood mortality. It can also help to ensure the long-term use of natural resources, as well as minimize the rate of climate change and the frequency and severity of conflicts around the world, by lowering the amount of resource competition caused by population expansion [15, 16].

Disability is one of the most significant barriers to the uptake of reproductive health (RH) services, particularly family planning (FP), in Sub-Saharan Africa, because PWDs are considered as asexual and unlikely to marry or carry children. WWDs have a high unmet need for FP, which is defined as the number of women who want to space, limit, or stop having children. In comparison to normal women, the few local area studies on the RH of WWDs in LMICs reveal that WWDs are neglected and excluded from contraceptive availability and services [17, 18]. Although detailed studies of specific concerns such as handicap and HIV have been undertaken in some areas of LMICs, there has been little research on the contraception practices of WWDs in these contexts [19, 20].

A thorough examination of evidence of contraceptive dynamics among WWDs, as well as the amount of application and effectiveness of contraceptive services in LMICs, is critical in determining the emphasis of future research on the disabled population. Scanning the corpus of literature on a given issue, summarizing and distributing research findings, identifying research gaps, and offering recommendations for future study are all essential purposes of scoping reviews. The goal of this scoping review is to improve our understanding of contraceptive use, unmet needs, switching, and discontinuation among WWDs in LMICs. The findings of this study will allow researchers to assess the scope and diversity of research on contraceptive dynamics among WWDs in LMICs.

## Objectives

The objectives of this scoping review are to:

- Map the available evidence on contraceptive use, unmet need, switching, and discontinuation among WWDs in LMICs.
- Review current contraceptive care models and identify evidence gaps in contraceptive practice among WWDs in LMICs.

To allow for the identification and mapping of existing contraceptive dynamics findings among WWDs, a scoping review protocol design was used. The procedures specified by Arksey and O'Malley's scoping review methodology, as well as Levac et al's and Peters et al's scoping methodology enhancement recommendations [21-23], were followed in this scoping review. As a result, when conducting this scoping review, the following steps will be followed: (1) identifying research questions; (2) identifying relevant studies; (3) selecting studies; (4) charting data; (5) collating, summarizing, and reporting the results; and (6) consulting with relevant stakeholders.

### Stage one: identifying the research question

The overall main research question is defined as follows: 'What is known about the contraceptive dynamics and models of contraceptive care among WWDs in LMICs?' after consultation with the research team. This question would allow us to review and capture the full scope of existing literature while also allowing for the addition or modification of guiding research topics through an iterative manner. The following secondary questions were identified to guide the scoping review's subsequent stages and to supplement the overarching research question above.

The following questions will be addressed:

- (1) What forms of contraceptive dynamics on WWDs have been studied in LMICs thus far?
- (2) Where were contraceptive dynamics studies conducted in LMICs?
- (3) What kinds of disabilities have been studied in the past?

- (4) Where did the research take place (institution-based or community-based)?
- (5) What is the prevalence of WWDs in LMICs, as well as unmet needs, contraceptive discontinuation, and switching?
- (6) What are the hurdles that WWDs have identified to obtaining contraceptive services?
- (7) What were the limitations of the LMIC-based contraceptive dynamic studies?

## **Stage two: identifying relevant studies**

### Search strategy and information sources

Searching electronic databases of published literatures will be used to find research that are relevant to this study. The major database to be searched will be PubMed (MEDLINE). CINHALL, Cochrane databases, and Global Health will be searched for articles that are not indexed in PubMed. We will additionally explore a range of grey literature sources to ensure that other important information is gathered. We'll look through grey literature resources (including Google Scholar, Google, OpenGrey, and WorldCat) to find research, reports, and conference abstracts that are relevant to this review. In addition, we will manually search the reference lists of all relevant material. The results of the search will be downloaded into a citation manager and imported into an EndNote library for further inspection and duplication detection.

The search terms to be used for WWDs include disability/ties, impairment/s, "physical disability/ties", "physically impaired", "hearing impairment/s", "hearing loss", deaf, "visual impairment/s", blind, "visual loss", "intellectual disability/ties", "sensory disability/ties", women, "reproductive age group" "15-49 years", and low-and middle-income countries. The search terms used for contraceptive dynamics include, contraception/s or contraceptive/s, "contraceptive method/s", or family planning/s, or modern, traditional, or dynamic/s or utilization or use or unmet need or un-met need or discontinuation or discontinuation or switching, changing, women, "reproductive age group" and "low-and middle-income countries". Terms will be search as keywords in the title and/or abstract and medical subject headings (MeSH) as appropriate.

We used different synonyms of LMICs and the World Bank Country and Lending Groups June 2020 fiscal year list of LMICs (<https://blogs.worldbank.org/opendata/newcountry-classifications-income-level-2019-2020>). Literature search will be conducted by experienced research team members. GAF and AAM are an expert and trainer of literature search and systematic reviews. GAB has completed a 5-day intensive training on literature searches and systematic reviews. Moreover, we will be using established methods to ensure quality of the literature search, screening and information charting.

## **Stage three: study selection**

### **We will use two different degrees of screening:**

(1) A review of the title and abstract, and (2) a review of the full text

Two scientists independently screen all returned citations for inclusion using a set of minimum inclusion criteria. The full-text review will contain articles that are deemed relevant by one or both reviewers. The two investigators will next analyze the full-text articles independently to see if they match the inclusion/exclusion criteria in the second step. Any discordant full-text publications will be re-evaluated, and any remaining issues concerning research eligibility will be resolved by discussion at the full-text review stage. At this point, a third reviewer may be called to help resolve any disagreements.

At the beginning, halfway, and end of the abstract review process, reviewers will meet to address any issues or uncertainties related to study selection, as well as to go back and revise the search approach as needed. The number of studies included and excluded will be documented throughout the evaluation process. Before screening and charting, a calibration exercise will be undertaken on 20 randomly selected articles to establish team agreement. The inter-rater reliability and internal validity of our study's selection technique will be assessed using a statistical measure. A criterion of 80 percent agreement between coders has been established as acceptable [24]. The evaluation procedure will be thoroughly documented so that the study can be reproduced by others.

**Criteria for studies on contraceptive dynamics to be included** We'll look for research on contraceptive use, unmet need, discontinuation and switching, and barriers to accessing contraception services by WWDs in LMICs using broad inclusion criteria.

The following requirements must be met in order to be considered:

(1) Studies must look into, appraise, or report on the contraceptive dynamics of women with disabilities in the reproductive age group; (2) studies must be published in English. We will include prospective and retrospective cohort studies, case-control or nested case-control studies, and cross-sectional studies in the contraceptive dynamic review. In addition, a reference list of systematic reviews will be used to find additional research.

The following studies must have assessed the effectiveness and outcomes of contraception dynamic care or any existing model of contraception dynamic care in LMICs: (a) studies that recommended guiding principles or approaches for designing effective models of contraception dynamic care in LMICs; (b) studies that recommended guiding principles or approaches for designing effective models of contraception dynamic care in LMICs. Studies that describe concepts/principles or models of contraceptive dynamics care in LMICs will be considered. We will use randomized controlled trials, quasi-experimental studies, prospective and retrospective cohort studies, case-control or nested case-control studies, and cross-sectional studies to evaluate the model of contraception care. Studies that were not found in the primary search will be forwarded to systematic review reference lists.

**Exclusion criteria:** This scoping review will exclude research from high-income nations, study procedures, commentaries, editorials, and case reports. Although the previously indicated inclusion and exclusion

criteria will remain tight, as the research team gains a better understanding of the subject matter through the entire examination of studies, we may iteratively specify more criteria. We will not perform a quality assessment of the papers to be evaluated because it is not a common requirement of scoping reviews [25, 26]. However, we will use the parts of the Peer Review of Electronic Search Strategies (PRESS EBC Elements) [27] to improve the accuracy and completeness of the evidence-based search.

## **Patient and public involvement**

No patient involvement

## **Stage four: charting the data**

The study team created a data collecting instrument to retrieve data from the included studies for both the contraceptive dynamic and the model of contraception care. The team built the data charting form together and decided on the variables and level of detail of the data to be extracted. The study team will pilot the tool prior to the start of the review to ensure that it appropriately captures the information. The data abstracted for the contraception dynamic review will comprise

- Demographic data,
- Methodology,
- Setting,
- Key findings, and
- Study limitations are all covered.

Two independent reviewers will abstract data, and the abstracted data will be compared. Any inconsistencies will be handled to ensure that the reviewers are on the same page. The data mining process will incorporate descriptive analytical approaches that summarize and synthesize information in a transparent manner, according to Arksey and O'Malley's advice and Peters et al's guidance for scoping review. As part of this methodology, a draft charting form is created based on the Joanna Briggs Institute (JBI) scoping review manual [28] and Peter et al's scoping review guidance [23] to record characteristics of the included studies as well as critical information pertinent to the review topic. Author(s), year of publication, source origin/country of origin, aims/purpose, study population and type of disabilities, sample size, methodology, intervention type (if available), comparator, duration of the intervention (if applicable), outcomes (if applicable), key findings that relate to the review question, and limitations of the studies will be included in the extraction field. In the conduct and reporting of this scoping review, we will use EndNote to organize and code references [29].

## **Stage five: collating, summarizing and reporting the results**

We will present stage five in three discrete parts, as recommended by Levac et al: assessing the data, reporting results, and applying meaning to the results [22]. The data will be summarized and reported in a way that maps the breadth of extant literature in the field of contraceptive dynamic and its model of contraception care in low- and middle-income countries. We'll map the concepts that underpin contraceptive dynamic research, as well as the types and quality of evidence available in LMICs. Furthermore, the available evidence on contraception dynamics and care models in LMICs will be mapped and described in detail. We will narrate the implications of findings within the larger framework for research, policy, and practice in order to make this scoping review more usable.

Finally, we'll give an overview of the research field and where it's at right now, as well as the gaps that exist. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) checklist and explanation style will be used to describe the results of our review [30].

Over the course of three months, the review team plans to conduct preliminary searches and complete literature searches, screening, and data charting. The results will then be gathered, summarized, and reported.

### **Stage six: consulting with relevant stakeholders**

Consultation, according to Arksey and O'Malley, enhances methodological rigor. Once the early findings from stage five have been produced, seeking stakeholders' opinions (policymakers, practitioners, and researchers in Ethiopia) and their thoughts on applying the results to the scoping study would be considered.

## **Discussion**

Globally, PWDs are widely regarded as one of the most marginalized and socially excluded populations [6]. Women with disabilities are significantly worse than males with disabilities, as they are the most underprivileged in many underdeveloped nations [7, 8]. People with disabilities do not use the services provided by family planning (FP) clinics because access to them is limited and information and services are few [7]. Furthermore, the deleterious effects of accessing contraception services are numerous. For instance, it could lead to unintended pregnancy, abortion, adverse pregnancy outcomes, and high maternal morbidity and mortality.

When compared to non-disabled women in low- and middle-income countries, WWDs had a lower prevalence of contraceptive usage and a higher unmet need. Contraception use among WWDs ranged from 13 percent to 31.1 percent, with 24.3 percent of unmet need [31-33]. This indicates a pervasive issue that could compromise the United Nations (UN) General Assembly Convention article 25, which guarantees PWDs access to SRH services, and make the situation difficult to address. Despite these facts, they are the most marginalized people on the planet.



As a result, developing a contraception model of care to promote contraception access is critical if high unmet needs and contraception failure are to be reduced. It is critical to map available evidence and identify knowledge gaps in order to do this. As a result, the findings of this scoping review will be significant in terms of the contraceptive dynamic among WWDs in LMICs.

To our knowledge, this is the first scoping review that will provide a complete overview and insight on contraceptive dynamics among WWDs in LMICs. This review's strength will be its ability to clearly identify existing knowledge gaps on contraceptive dynamics while employing a transparent and repeatable procedure. The review's limitation is that only English literatures will reflect a portion of the study done in LMICs. It will, however, make every effort to present a clear picture of contraceptive dynamics in LMICs, regardless of publication year or status.

## **Dissemination and ethics**

This will be the first scoping review of its kind, with the goal of defining the many types of evidence in contraceptive dynamics, clarifying key ideas in the literature, illuminating contraception care models, and examining evidence gaps in LMICs.

Researchers will be able to use the results to identify knowledge gaps in the field. The findings of this scoping study will inform the next phase of contraceptive dynamic studies in Ethiopia and other LMICs. This study does not require ethical approval because the scoping review approach comprises of reviewing and gathering data from publicly available materials [34].

The suggested scoping review is viable, attainable, and timely, in our opinion. At local, national, and worldwide conferences, we will develop presentations to distribute findings to key stakeholder and end-user groups. Our findings will also be published in a peer-reviewed journal. We reviewed the International Prospective Register of Systematic Reviews to see if any review protocols on the same issue had been registered (PROSPERO). This scoping review protocol was registered in the Open Science Framework (OSF) data base @osf.io/7btvn with the registration number DOI/10.17605/OSF.IO/XCKPT because PROSPERO is not presently accepting scoping review protocols for registration.

## **Abbreviation**

CINHAL: Cumulative Index to Nursing and Allied Health Literature, FP: Family Planning, HIV: Human Immunodeficiency Virus, ICF: International Classification of Functioning Disability and Health, LMICs: Low-and Middle-Income Countries, MeSH: Medical Subject Headings, OSF: Open Science Framework, PRISMA-ScR: Preferred Reporting Items for Systematic Review and Meta-Analyses Extension for Scoping Reviews, PWDs: People with Disabilities, SRH: Sexual Reproductive Health, SDG: Sustainable Development Goals, SNNPs: South National Nationalists People, UN: United Nations, WHO: World Health Organization, WWDs: Women with Disabilities

## **Declarations**

**Ethics approval and consent to participate:** This study consists of published studies and not individual data from human or animal participants.

**Consent for publication:** This study does not contain any individual person's data.

**Competing interests:** There are no financial or non-financial competing interests to declare.

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**Authors' contributions:** The contributor's statement should be revised as "GAB, GAF and AAM" contributed to generating the concept of the review. GAB drafted the protocol. SMA, GAF, AAM and BMG helped to edit the protocol. GAF and SMA edited the language. All authors critically reviewed and approved the final manuscript for submission."

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**Patient consent for publication** not required.

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