

Male involvement in family planning use and its determinants in Ethiopia. A systematic review and meta-analysis protocol

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Systematic Review

Keywords: Pooled prevalence, determinants, male involvement, family planning use, Ethiopia

Posted Date: August 30th, 2021

DOI: <https://doi.org/10.21203/rs.3.rs-699111/v2>

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Abstract

Background

The need to include males that required joint spousal decision is critical in achieving key reproductive health indicators. Low involvement of males in family planning use is one of the contributing factors for low contraceptive use in Ethiopia. Despite this, there are inconsistent findings on the prevalence and determinates of males involvement in family planning use in Ethiopia. Thus, this systematic review and meta-analysis aimed to determine the pooled prevalence of mal involvement in family planning use and its determinants in Ethiopia.

Methods

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses guideline will be used to develop the protocol. Online databases PubMed, CINAHL, Google Scholar, and unpublished grey literature will be searched to retrieve available articles from April 10-August 11/2021. The two authors will conduct selection of studies, data extraction, and quality assessment. The quality of the studies will be assessed using Joanna Briggs Institute checklist. Chi-squared test and I-squared statistic will be used to examine heterogeneity among studies. Sources of heterogeneity will be investigated using subgroup analyses and meta-regression based on regions and residence (urban and rural). Publication bias will be examined by observation using funnel plots and statistically by Begg's and Egger's tests. A random-effect model will be used to estimate the pooled prevalence and its determinants of male involvement in family planning use.

Discussion

The role of the male in family planning and participation in contraceptive use improves women's uptake and continuity of family planning use. Though there are studies on male involvement in family planning use, there is no synthesis research findings on the pooled prevalence of male involvement in family planning use and its determinants in Ethiopia. Therefore, the finding from this systematic review and meta-analysis will help the national health sector transformational plane to emphasize the pooled prevalence and its determinants that drive low male involvement in family planning use in Ethiopia.

Introduction

"Male involvement in family planning refers to all organizational activities aimed at men as a discrete group which has the objective of increasing the acceptability and prevalence of the family-planning (FP) practice of either sex" [1]. Family planning is an effort by a couple to limit or space the number of children they have by using contraceptive methods [2]. Family planning use reduces unwanted pregnancy, induced

abortion and promote birth spacing. Moreover, it also helps to reduce neonatal, infant, child, and maternal mortality [2, 3].

The need to include men that required joint spousal decisions is critical in achieving reproductive health key indicators [4-10]. However, male roles in couple's fertility decision-making have given less emphasis. There was a paradigm shift in male involvement and concerns from increasing contraceptive use and attaining demographic goals to gender equality and achieving various reproductive duties since the 1994 International Conference on Population and Development (ICPD) and the 1995 United Nations World Conference on Women [1, 11].

Globally, contraceptives methods use varied from 69% southeast Asia to 11% in Africa [12]. A Qualitative review in Sub-Saharan African countries showed low involvement of men in family planning use [13]. To achieve sustainable development Goals (SDGs), the participation of men in reproductive health issues is crucial. Moreover, regulating fertility to the level of substitution is essential to increase economic development [14]. Family planning use can avert 32% and 10% of maternal and child mortality respectively [15, 16].

Studies showed that factors that contributed to low family planning coverage include the desire to have more children, lack of knowledge, lack of husband education, and negative perception towards family planning use, sex preference, religious prohibition, and low involvement of men [9, 13, 17, 18].

In Ethiopia, the decision on household-related issues, including fertility, mainly belongs to the husband. The low involvement of men in family planning use is one of the contributing factors for low contraceptive use and high unmet need in Ethiopia. Studies done in different regions of Ethiopia showed the role of men in family planning use, and male participation in contraceptive use improves women's uptake of family planning services [2, 4, 19-21]. The contraceptive use was low 41.4%, and high unmet need for family planning 22% and contributes to a high total fertility rate (TFR) 4.6, maternal mortality 412 per 100,000 live birth, neonatal 30, infant 43, and under-five mortality rate per 1000 live birth [2, 22].

Though the Ethiopian government set a target for a contraception prevalence rate of 55% by 2020 to achieve SDGs [23] and develop National Guideline for Family Planning Services [24], low emphasis has given to the role of men's involvement. Dissipate this, there is a lack of nationally representative data on male involvement in family planning use in Ethiopia [2, 22]. Several studies had conducted in different

parts of the country on male involvement in reproductive health and utilization of family planning [4, 6, 25-27]. However, there are inconsistent findings on prevalence and its determinants of male involvement in family planning use [16-21, 25]. Therefore, this systematic review and meta-analysis aimed to determine the pooled prevalence of male involvement in family planning use and its determinants in Ethiopia.

Research question

- What is the pooled prevalence of male involvement in family planning use in Ethiopia?
- What are the determinants of male involvement in family planning use in Ethiopia?

Objectives

- To determine the pooled prevalence of male involvement in family planning use in Ethiopia
- To identify determinants of male involvement in family planning use in Ethiopia

Methods

Study Protocol and Reporting

A systematic review and Meta-analysis protocol will be prepared using the Preferred Reporting Items for Systematic review and Meta-analyses (PRISMA) guideline [28]. PRISMA-P 2015 checklist will be used to report the protocol [29] (*Additional file 1*).

Eligibility criteria

All observational studies including cross-sectional, case-control, and cohort will be included. Case reports, case series, conference reports, and expert opinions will be excluded from the review. Studies that only investigate the qualitative approach of male involvement in family planning use will be excluded. If studies that address both quantitative and qualitative finding, we will only consider the quantitative findings result. Community and institution based studies will be included. Studies published in the English language alone will be included. There will not be a restriction on the date of publication.

PECO search guide

Population: Married men

Exposure: Determinates of male involvement in family planning use. Determinates are exposures that increase or decrease the likelihood of males involvement in family planning use in Ethiopia. The determinates can be marital status, the number of children, discussion with partner, knowledge on contraceptive use, ever used family planning methods, participation in community networks, etc.

Comparison: it is the reported reference group for each determinate in each study: marital status versus single, available children or not, good knowledge versus poor knowledge on contraceptives use, discussion of partners on family planning use or not, etc.

Outcome: The primary outcome of studies will be the overall prevalence of male involvement in family planning use among married men in Ethiopia. The secondary outcome of studies will be determinates of male involvement in family planning use among married men in Ethiopia. Male involvement in family planning refers involvement of male at least in one of the following activities; discussion or spousal communication, support, approval and contraceptive use of the husband.

Searching strategy and study selection

Online databases including PubMed, Google Scholar, CINAHL, and unpublished grey literature will be used to search articles from April 10-August 11/2021. In addition, cross-references searching of the included study will be done to include related studies. Removal of duplication, irrelevant studies, and inclusion of eligible studies will be done. The two authors (EW and SB) will independently screen the studies. Studies that mentioned the objective of male involvement in family planning use with full text will be further evaluated for quality by (EW and SB). The articles will be retrieved and exported to Endnote version 8 reference manager software to collect and organize search outcomes [30]. The procedure of searching strategy will be shown in PRISMA diagram (*Additional file 2*).

The search Medical Subject Heading (Mesh) terms will be developed using the authors' keywords articles, and PMID of sample index manuscripts on male involvement in family planning use, titles and abstracts of studies. Then, search strategies will be developed using different Boolean operators and modification will be made based of the types of data bases (*Additional file 3*).

Quality assessments

Assessment of articles using their title, abstract, and full review of the manuscripts will be done before the inclusion of articles in the final meta-analysis. The qualities of each article will be assessed by using the Joanna Briggs Institute Meta-Analysis of Statistics Assessment and Review Instrument (JBI-MASARI) [31]. Particular attention will be given to clear statement of the objective, inclusion criteria, study subjects, and setting, standard criteria used for measurement of the condition, exposure measurement in a validity and reliability strategies to deal with confounding, outcomes measurement,

and appropriate statistical analysis (*Additional reference 4*). Studies 50% and above of the quality scale will be considered and included in the final systematic review and meta-analysis. Studies that will not be eligible based on the full-text assessment will be excluded. The quality of the full articles will be assessed by two authors (EW and SB). Any disagreement among reviewers will be resolved by the third author (ZH).

Data extraction and management

Data extraction template will be constructed on Microsoft Excel (2016) for full-text eligible articles. Piloting of the data extraction will be carried out before the beginning of the authentic data extraction by all authors. All necessary data will be extracted using the pre piloted excel data extraction tool. The tool will contain information including author name, the year of publication, study area, study design, sample size, prevalence or proportion, odds ratio, lower confidence interval, upper confidences interval, log transformation and standard error of logarithm of prevalence, odds ratio, lower confidence interval, and upper confidences interval will be calculated. The two authors (EW and SB) will independently extract the data. Any discrepancies will be discussed with a third author (ZH) to reach an agreement. Authors will contact the authors of the studies in case of missing data or incomplete reports.

Data synthesis and analysis

The extracted data will be imported to STATA version 14 for analysis. The data will be presented using narrative synthesis of included studies and results will be presented using tables and figures. Square root transformation of data will be done using the Freeman Tuckey variant of the arcsine to avoid variance variability [32].

The pooled prevalence estimate of male involvement in family planning use in Ethiopia will be done using a random-effect model [33]. Forest plots will be used to present the pooled prevalence and its determinates of male involvement in family planning use at a statistical significance level of a p-value of less than 0.05 [34]. Heterogeneity across studies will be assessed using Cochran's Q [35] and I² statistics [36]. I² values of 25%, 50%, and 75% representative of low, moderate, and considerable heterogeneity respectively. Subgroup analysis and Meta-regression will be done based on region and residence (urban and rural) to identify the sources of heterogeneity. Moreover, the sensitivity analysis will be done to investigate the effect size estimates of studies. Publication bias will be checked using visual inspection on the funnel plot [34]. An asymmetry of the funnel plot indicates publication bias. Moreover, Eggers and Begg's tests [37] will be conducted to check the potential publication bias and a p-value of < 0.05 will be used to declare the statistical significance of publication bias.

Discussion

This systematic review and meta-analysis protocol aim to synthesize the pooled prevalence of male involvement in family planning use and its determinants in Ethiopia. After the 1994 International Conference on Population and Development (ICPD) and the 1995 UN World Conference on Women, attention to male involvement has improved special efforts to emphasize men's joint responsibility and promote their active participation in reproductive health services [1, 11].

Studies showed family planning has many benefits, including reducing maternal, child, and infant mortality. Prevent unplanned pregnancy and improve sustainable socio-economic development. Family planning could avert up to 42% of maternal mortality [38]. Despite these benefits, contraceptive use is still low, and the unmet need for family planning is high in developing countries, including Ethiopia [4, 7, 9, 10]

Studies in developing countries examined the role of men involvement in family planning and male participation improves women's uptake of family planning methods, increasing spousal coordination, support the success of family planning programs, and provide rights to their partners in reproductive health services [9, 13, 17, 18].

Currently, there are no synthesis research findings on the pooled prevalence of male involvement in family planning use and its determinants in Ethiopia. Therefore, this systematic review and meta-analysis will help the development of appropriate strategies that will have an impact on male involvement in family planning use.

This study protocol may have the following limitation. Heterogeneity may exist between studies due to differences in study designs, settings, sample size, and publication biases. Only articles published in the English language will be considered. Moreover, only observational studies design will be included, and interventional trials and quasi-experimental studies will be excluded.

Abbreviations

FP: Family-planning; ICPD: International Conference on Population and Development; JBI-MAStARI: Joanna Briggs Institute Meta-Analysis of Statistics Assessment and Review Instrument; PRISMA: Preferred Reporting Items for Systematic review and Meta-analyses; SDGs: Sustainable development Goals; TFR: Total fertility rate

Declarations

Acknowledgements

We would like to thank Samara University for the provision of free internet and HINARY databases website access

Author contribution

EW conceived, designed, and drafted the systematic review and meta-analysis protocol manuscript. EW, SB, and ZH extensively reviewed and incorporated inputs in the protocol manuscript development. Each author read and approved the final version of the protocol.

Funding

No founder

Availability of data and materials

Additional files for the review protocol were submitted as supplementary materials

Ethics approval and consent to participate

N/A

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Conflict of interest

Authors declare no conflict of interest

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