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Measurement of Contraceptive Decision-Making and Contraceptive Use



EMERGE Brief
Measurement of Contraceptive Decision-Making and Contraceptive Use

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Background:

Assessing women's control over contraceptive decision-making is fundamental to understanding women's agency and gender equity in family planning. Correspondingly, gender transformative programming designed to increase women's agency is gaining greater recognition in the field of global reproductive health [1]. Despite progress on including women's agency in family planning interventions [2], we are less clear how best we can measure contraceptive decision-making to understand their relationships with gender transformative family planning outcomes. Existing measures of decision-making have proven to be significantly associated with contraceptive outcomes [3-10], but these measures are not clearly indicative of women's agency and may not capture women's engagement in decision-making dynamics and couple communication on contraceptive use [11]. Interpreting the nature of gendered decision-making and its impact on contraceptive use requires the study of complex marital and cultural dynamics across contexts, as contraceptive uptake is impeded by numerous social determinants, even if contraceptives are available [12]. Hence, we conducted a review of peer-reviewed publications on contraceptive decision-making measures and their association with contraceptive use to illuminate the state of the field, allowing us to advise better on best evidence measures of contraceptive decision-making that include agency assessment and are associated with contraceptive use.

Purpose: (1) To understand measurement of contraceptive decision-making, (2) to determine how measures of contraceptive decision-making assess women's agency versus women's inclusion in decision-making, and (3) to assess whether decision-making is associated with contraceptive use across country contexts.

Methods:

From June to August 2021, a review of peer-reviewed published literature on quantitative measures of decision-making was conducted using the following databases: PubMed, Google Scholar, and Embase to ensure comprehensive findings. Additionally, five international family planning research experts provided their recommendations of papers in this field. Only papers published in peer-reviewed journals from January 2011 to June 2021 were reviewed. All papers were in English and had a minimum of 200 participants in the study. Specific outputs by database were as follows:

- Our search with PubMed used the following terms: (((*"decision-making"*) and (*"family planning"*)) or (*"contracep"*)) and (*survey*). This yielded 261 abstracts published in the past 10 years. Of these, 53 articles met our inclusion criteria.
- Our search with Google Scholar used the following terms: *"decision-making" and "family planning" or "contracep" and "survey"*. This search yielded 16,900 hits. From these, we identified 12 abstracts that met study criteria. Of these, 8 papers overlapped with the PubMed search results, yielding 4 new papers from this search.
- Our search with Embase used the following search terms: ((*'decision-making'/exp or 'decision-making'*) and (*'family planning'/exp or 'family planning'*) OR *'contracep'*) and (*'survey'/exp or 'survey'*). This yielded 341 abstracts. Of these, 46 were found in the previous two database searches. Hence, this search contributed 3 new papers.
- Our recommendations for additional papers from experts yielded 17 papers not otherwise identified via our searches.

For this brief, we focused on measures of women's contraceptive decision-making, which made 26 papers. These papers were reviewed to characterize the papers by: sample and sampling, the decision-making measures and variable construction, the nature of the contraceptive decision-making variable (including measures of contraceptive decision-making, measures of contraceptive and household decision-making, or measures of female contraceptive agency in decision-making), measures of contraceptive outcomes and demonstrated associations between contraceptive decision-making and contraceptive use. In our assessment of the contraceptive decision-making variables, we define female engagement and male engagement as indicating their involvement in decision-making, and female agency as indicating final or greater decision-making control inclusive of covert use, satisfaction with decision-making involvement, and/or equity in decision-making.

Results:

Of the 26 identified papers, 19 of these (73%) were published in the past 3 years (2019-2021), highlighting the increasing focus on improving measurement of women's decision-making in contraception in the field. Notably, despite no limitations on country inclusion in our search, all papers involved data from low- and middle-income countries (LMICs) representing mostly Africa and South Asia. Based on our review, we were able to categorize papers into one of

three mutually exclusive categories: 1) Measures of contraceptive decision-making (n=12; 46%), 2) Measures of contraceptive and household decision-making (n=8; 31%), 3) Measures of female contraceptive agency in decision-making (n=6; 23%).

Measures of Contraceptive Decision-Making

Of the 12 papers that included measures of contraceptive decision-making, 5 relied on a single-item measure: the standard DHS Contraceptive Decision-Making measure [13]. The other 7 papers utilized new measures similar to the DHS measure (5) or single-item contraceptive decision-making measures nearly identical to that of the DHS measure (2). All of these measures assessed “who” is the decision-maker for contraceptive use, with response options identifying women only, men only, women and men jointly, and other. Variable constructions included:

- joint decision-making vs. other types of decision-making (1 DHS paper [5]; 2 non-DHS papers [14, 15]),
- joint decision-making vs. mostly unilateral female decision-making vs. mostly unilateral male decision-making, occasionally combined with other decision-making types (4 DHS papers [3, 4, 6, 7]; 4 Non-DHS papers [16-19]), or
- female engagement in decision-making vs. no female engagement (1 non-DHS paper [20]).

The non-DHS measures were exceptionally similar to the DHS measure, with only slight variations.

Joint decision-making via these measures was consistently associated with increased contraceptive use and lower contraceptive discontinuation. Women in Ethiopia making joint contraceptive decisions reported a decreased likelihood of contraceptive discontinuation [4]. In Zambia, women making joint decisions were more likely to use injectable, long acting and permanent methods (ILAPMs) than women whose spouses were uninvolved in contraceptive decision-making [5]. Broadly across sub-Saharan Africa, contraceptive decisions made jointly were associated with increased uptake of female permanent contraception [6, 7].

Unilateral decision-making yielded less consistent results. Female unilateral decision-making was associated with an increased likelihood of contraceptive use in one Nigerian study and decreased likelihood of contraceptive discontinuation in an Ethiopian study [4, 18]. Women in Pakistan whose husbands made contraceptive decisions unilaterally, rather than jointly, were more likely to have an unmet need for family planning [3]. However, in sub-Saharan Africa, unilateral decisions by males were associated with increased uptake of female permanent contraception [6, 7]. A similar measure applied in Ethiopia found no significant associations between any form of marital decision-making and LARC use [16].

Measures of Contraceptive and Household Decision-Making

Of the 8 papers that included combined measures of household and contraceptive decision-making, 3 used DHS data [8-10], while 5 employed unique measures [21-25]. All these measures assessed “who” was the decision-maker for contraceptive use. For the 3 DHS measures, household decisions included health care, freedom of movement, and financial decision-making, alongside contraceptive decision-making [8-10]. These measures assessed women’s engagement in decision-making as joint or unilateral. Regarding the non-DHS measures, household decision-making included the domains of health care, child health and/or education, financial decision-making, freedom of movement, and sexual and fertility behaviors [21-25]. None of these papers used the same measure, but they all focused on female engagement (joint or unilateral) vs. lack of female engagement.

Female engagement of any extent in the form of joint or unilateral decision-making in household and contraceptive decisions was often, but not always, associated with increased contraceptive use and positive family planning outcomes. In India, a study found that joint contraceptive decision-making and partial or full female participation in household decision-making were associated with greater likelihood of spousal agreement on contraceptive use [8]. On the other hand, a combined measure of contraceptive, fertility, and household decision-making in Lao PDR identified female involvement of any extent in decisions as well as frequency of discussions on fertility and contraception with a partner yielded significant associations with decreased likelihood of contraceptive use among women not involved in financial decisions or discussions on contraception [21]. In Kenya and Eastern Ethiopia, summed scales for women’s independent and joint decision-making across contraceptive, sex, and household decisions found that women’s decision-making involvement was not significantly associated with contraceptive use in Kenya but was associated with decreased likelihood of unmet need for contraception in Ethiopia [22, 23].

Female unilateral decision-making in household and contraceptive or fertility decisions yielded varied contraceptive outcomes across contexts. In Tanzania, a measure identifying female’s independent decision-making on fertility and household decisions found that women involved in independent decision-making in these domains were significantly more likely to report use of condoms and other (non-specified) modern contraceptives [24]. Via DHS data in northern Nigeria, women making more autonomous household and contraceptive decisions were also at greater likelihood of using a modern contraceptive [9]. However, in Pakistan, findings suggest that joint decision-making was significantly associated with increased contraceptive uptake in this setting, while female-only decision-making was not [25].

Measures of Female Agency in Contraceptive Decision-Making

6 papers used measures focused on female contraceptive agency in decision-making, none of which were DHS measures and with no overlap. These measures focused on final, greater or equitable control over decision-making and satisfaction with level of control over decision-making.

Women's final or greater control over contraceptive and fertility decision-making was not consistently associated with contraceptive use, while the only measure of equitable fertility decision-making was. In urban Ghana, an index measure of contraceptive and fertility decision-making was constructed based on a woman's agreement with statements on using a contraceptive method, timing of pregnancy and what would happen in case of an unplanned pregnancy [26]. This study found that women who had the most say in contraceptive and reproductive decisions, were associated with significantly greater likelihood of having used contraceptives at last sex [26].

One study in Ethiopia constructing its contraceptive decision-making measure around who has the *final* say in deciding upon a family planning method, with responses categorized as self or joint decisions, did not find significant associations between any form of marital decision-making and contraceptive use [27]. Meanwhile, a similar measure applied in rural Ethiopia individually assessed contraceptive associations with 1) who makes the final decision on using family planning, 2) if there was a discussion between the spouses on family planning, and 3) if the wife can use family planning without the husband's consent, demonstrated no significant associations between a husband's control over decision-making nor wife's ability to use family planning without a husband's consent and contraceptive use. However, discussion with a spouse on contraception remained significantly associated with contraceptive use [28].

Similarly, the Contraceptive Final Decision-Maker measure applied in rural India asked married women who would make the final decision to use contraceptives if their husband disagreed with them on the matter, and found that women reporting that they themselves would make the final decision did not have an increased likelihood of using contraceptives in general, though they were more likely to use oral contraceptive pills specifically [29]. In another study in India, it was shown that perceived equity in fertility decision-making was significantly associated with increased likelihood of using contraceptives [30].

Women's final control and satisfaction with involvement in decision-making showed associations with fertility goals but not contraceptive uptake. The Reproductive Decision-Making Agency measure, applied in Nepal, found that women with high agency were significantly more likely to feel that they could achieve or had already achieved their fertility desires, and demonstrated a trend, without statistical significance, toward having met contraceptive need [31].

Discussion:

Contraceptive decision-making is an area of increasing interest in the field of global reproductive health, as indicated by the recent increase in peer-reviewed literature on the topic. However, the field largely continues to rely on DHS measures, which reflect gendered engagement more than agency in decision-making. Newer measures of agency also have seen little replicability, again, limiting our understanding of this issue. Further, developing knowledge is restricted to LMICs as many national and regional contexts are missing from existing literature. Nonetheless, the growth in analysis and development of measures on this topic offers important insights regarding how we measure decision-making and whether decision-making is associated with contraceptive behaviors.

We find that there are three key ways decision-making measures are being utilized: via measurement of male engagement in joint contraceptive decision-making, measurement of female engagement in contraceptive and household decision-making, and measurement of female agency in contraceptive decision-making. Each of these distinct aspects of decision-making are yielding differential findings regarding associations with contraceptive use and understanding this will not only enable optimization of measures but also targets for family planning intervention.

Contraceptive decision-making measures constructed around joint decision-making produce consistent associations with contraceptive use across LMICs, which is likely why they continue to be the standard measure used in the field. Notably, these measures seeking to identify joint decision-making may truly be revealing of supportive male engagement in LMIC contexts [32]. However, our understanding of the extent to which each partner is involved in the joint decision is not addressed by measures of this nature [11].

Similarly, the combined measures of household and contraceptive decision-making all sought to identify female engagement in decisions, and often demonstrated association with increased contraceptive use when the measure construction was inclusive of joint decision-making. The addition of household decision-making components to the measures highlights that there is an association between female household decision-making involvement and contraceptive use outcomes, with an emphasis on the importance of involvement in financial decision-making in one of our evaluated studies [21].

Measures of agency across LMICs demonstrated that agency, even inclusive of female final decision-making control, satisfaction with involvement, and self-efficacy for covert use, was not as frequently associated with increased contraceptive uptake in many contexts as was male engagement in joint decision-making. Hence, although these measures of agency provide more insight into the nature of gendered engagement and dynamics in the decision-making process than the measures identifying male or female involvement in decisions, they were less often prognostic of contraceptive use.

Taken together, these findings support the field of knowledge suggesting that joint decision-making, an indicator of male engagement in a joint capacity in LMICs, is the key driver of desirable contraceptive use outcomes [33-36]. When spouses decide upon contraceptive use together, this is more indicative of equitable and non-traditional gender roles that are more amenable to contraceptive uptake, highlighting the known importance of spousal communication and joint engagement [33-37]. Our findings that decision-making unilaterally or with greater influence by women does not consistently predict increased contraceptive use across contexts may be indicative of negative impacts arising from lack of males' support or approval of contraceptive use, which have been found to be significant determinants of family planning outcomes [22, 35, 38]. Additionally, contraceptive and household decision-making measures indicate the value of household decision-making in conjunction with contraceptive and fertility decision-making as predictive of contraceptive use, as their observed outcomes are not entirely unique from those of joint decision-making on contraceptive use alone [39]. As such, intervention programs should consider integrating both contraceptive and household decision-making, with some indication for emphasis on financial decision-making in our analysis and healthcare and mobility decisions in other analyses [43]. Lastly, regarding agency measures, although female final decision-making control does not seem to be as meaningful in producing contraceptive uptake, there is promise for addressing women's fertility goals, an important outcome in support of women's reproductive autonomy [31].

Conclusions:

Striking a balance between desirable public health outcomes – met contraceptive need – and women's personal reproductive desires is a challenging, yet necessary endeavor which can be informed by high quality measures and enabled by intervention. Thus, male engagement in joint decision-making should be the key target of family planning intervention programs, but promoting male engagement in joint decisions to increase contraceptive use without supporting female agency or involvement would be dangerous to gender equity and female autonomy [42, 44, 45]. Our current standard measures of decision-making are not inclusive of female agency, therefore there is a need to better understand the nature of this by providing more comprehensive measures to become a standard of the field.

Correspondingly, development of broader measures of female agency and male engagement are also pertinent to understanding and improving family planning outcomes [44, 46]. Measurement of agency can subsequently characterize women's self-efficacy and actions involving communication initiation, assertive communication, seeking out of family planning counseling, and resistance against fertility pressures, such as covert seeking of contraceptive counseling or use [44]. This body of work reinforces the need for the field to focus on building female agency and respectful male engagement, without compromising either. Our findings therefore suggest that approaches to intervention and measure development may benefit from a combination of targets including male engagement, female agency, and female household or economic positioning and autonomy.

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