TITLE: Common family planning stereotypes and postpartum family planning uptake in Indonesia

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BACKGROUND: Indonesia's modern contraceptive prevalence rate (mCPR) has been stagnant for the last decade at 57% [1]. Data also show that Indonesian women largely rely on reversible methods of contraception (about 97% in 1991, 1997 and 2012). Injectable contraceptives are the most preferred method and their use has increased consistently over the past several decades (from 12% in 1991 to 21% in 1997 and to 32% in 2012). On the other hand, IUD and implant use has been declining over the years (IUD use fell from 13% in 1991 to 8% in 1997 and 4% in 2012) [1]. A possible reason for this decline is women's lack of knowledge about long-acting methods, or lingering negative attitudes or beliefs associated with these methods, which can affect family planning (FP) decision making [2-4]. Previous qualitative research into the barriers to accepting long-acting methods in Indonesia suggest that while women are aware of long-acting methods, they choose to use short-acting methods for personal reasons, which include misconceptions and poor knowledge of the how the method works [5]. This paper uses quantitative and qualitative methods to examine associations between postpartum family planning uptake and personal beliefs about methods.

METHODS

This analysis uses data from the Postpartum Family Planning (PPFP) Choices program in Central Java, Indonesia. PPFP Choices is a longitudinal quasi-experimental study that aims to identify client, provider and facility level characteristics associated with the uptake and continued use of PPFP. We analyze data from 1,540 women from the study's comparison district who completed post-delivery interviews between November 2017 and August 2018, and focus on a survey questions related to myths, misconceptions and stereotypes about postpartum family planning methods. We conducted descriptive analysis on demographic factors and binary logistic regression modeling for the outcome of immediate uptake of any family planning method using a compound variable for the number of myths a client agrees with. Quantitative results are reinforced by preliminary results from focus group discussions (FGDs) conducted 6 months after delivery with five groups of women (6-9 women each), differentiated by public and private sector clients and by acceptors and non-acceptors (with a total number of 32 women).

The data analysis was completed using Stata/SE 15.0. The study received ethical approval from both the Johns Hopkins Bloomberg School of Public Health (IRB number 00007462) and the Indonesian Committee of Health Research Ethics, National Institute of Health Research and Development, Ministry of Health RI (number: LB.02.01/5.2/KE.002/2017).

RESULTS

Quantitative Findings

On average, women were 26 years old and were in the facility for the delivery of their second child. Almost all (99.4%) were married. Most (71.1%) had completed secondary school or higher. Only 30.2% were currently employed. Only 6.0% started using a FP method before discharge.

Almost all women, 91.5%, agreed that family planning caused at least one of the outcomes we asked about (Figure 1). The most commonly believed statement was that family planning causes weight gain, which 89.9% agreed with for at least one method. More than a quarter of the women, 26.5%, also believed that at least one method was dangerous to a woman's health and around 20% believed family planning could be harmful to a woman's womb or reduce a woman's sexual urge.

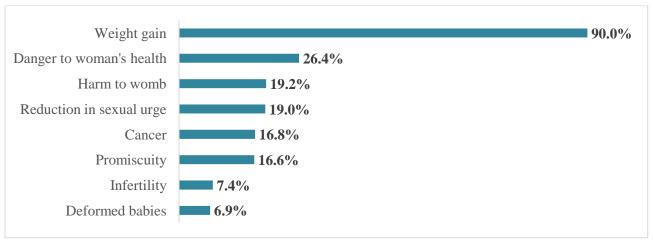


Figure 1. Belief in common myths, misconceptions and stereotypes about Family Planning, N=1,540

We also asked women about their knowledge of individual methods of family planning and their effectiveness (Figure 2). Most women had heard of injectables and contraceptive pills, but few women (9.2%) said they knew of LAM. While women, in general, tended to under-value the effectiveness of methods, 31% of all women over-estimated the effectiveness of injectables, indicating that they were "always" effective.

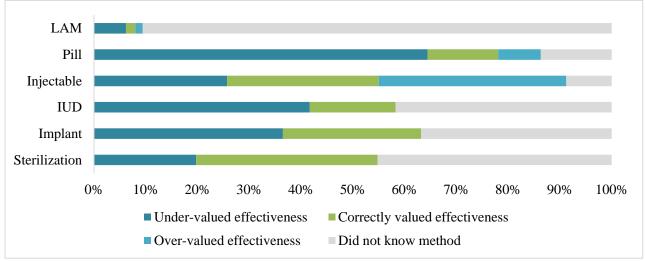


Figure 2. Knowledge of Family Planning Methods and Their Effectiveness, N=1,540

Results from logistic regression of the relationship between immediate PPFP uptake and agreement with common myths, misconceptions and stereotypes are shown in Table 1. Model 1 shows the odds of accepting a method of postpartum family planning controlling for demographic characteristics only. In

Model 2, we add a count variable to see if agreement with more myths, misconceptions or stereotypes changes the odds of accepting a method of PPFP.

Table 1. Odds of accepting immediate postpartum family planning

	Model 1		Model 2	
	OR	p-value	OR	p-value
Age	1.16	< 0.001	1.16	< 0.001
Parity				
1 (Ref)				
2-3	14.17	0.009	14.10	0.011
More than 3	67.22	< 0.001	66.53	< 0.001
Education Level				
None (Ref)				
Primary	0.75	0.673	0.73	0.506
Secondary	0.87	0.831	0.87	0.626
Tertiary or higher	1.17	0.828	1.16	0.903
Number of Myths, Misconceptions or Stereotypes			1.16	0.035
Agreed with				

The results of the logistic regression show that the odds of accepting a method increase by 1.16 times for each additional myth, misconception or stereotype that a woman agreed with. Upon closer examination, we found exceptionally high PPFP uptake, 26.7%, among women who believed seven of the eight possible myths, misconceptions or stereotypes. These women were three times more likely to have at least three children, which may account for the high uptake. When an interaction variable is added to account for this relationship, the OR for the myths, misconceptions and stereotypes variables decreases to 1.08 (p=0.721) and parity remains a highly significant predictor of the odds of accepting a method of PPFP.

Qualitative Findings

Women who participated in FGDs indicated that they conceptually accept FP. When asked about the ideal number of children they want to have, most of them said two or three. They were in favor of using FP because having too many children or having babies too close together would be burdensome. However, there was less support for long-acting methods. Participants stated that most people prefer injectables and not many use long-acting methods, such as IUD and Implant. They mentioned many myths about IUD and Implant, including those in the following table:

IUDs	Implants
Will disturb sexual relationship	Made from a corrosive materials, a needle
Women who use method cannot work hard	Women who use method cannot carry heavy
	things
Women who use the method become pregnant	
because of expulsion	

One FGD participant stated: What method I would use? If I use IUD, it is inserted 'inside here.' No, no, I don't want it. My husband doesn't want it. If I use implant, it is inserted 'here,' but people said we will not allowed to carry heavy stuff. It is what I heard before.

In another FGD conversation, women discussed misunderstandings implants insertion:

Mrs E: that implant, how it is used?

Mrs F: our skin is torn off

Mrs G: No, it is only like injection

Mrs F: Oh, I thought it is torn off to insert it

Mrs G: it is only injected a little bit, to insert the **needle**.

Additionally, women indicated that they are influenced by their husbands and friends when they select an FP method. Evidence from the FGDs suggest that rumors from friends have influenced how women think about FP methods. A key theme was that bad news (e.g. about IUD expulsion, swollen in arm after implant insertion) spreads faster than good news.

DISCUSSION & NEXT STEPS

Preliminary analysis of both quantitative and qualitative data from the PPFP Choices study in Indonesia show that negative attitudes, myths and misconceptions about family planning remain common. In the quantitative survey, women listed concerns about side effects of family planning methods such as weight gain and loss of libido, but a substantial number also indicated that they believed family planning could be harmful to a woman. FGDs found similar themes, with women stating that IUDs could disturb sexual relations and interrupt work, and that implants were made of corrosive or other harmful materials. Similar fears were seen by Titaley et al in Bali, including the concern that heavy lifting may cause IUD expulsion [5]. Qualitative findings from this study also match those in other countries about the influence of rumors and the sharing of negative stories through social networks [2, 5].

Although women who participated in both the quantitative interviews and FGDs believed misconceptions and stereotypes about family planning, statistical analysis did not suggest that these beliefs ultimately lead to reduced odds of using a method of family planning immediately after delivery. Recent findings from Kenya and Bangladesh suggest that high family planning use can exist simultaneously with prevalent misconceptions and negative attitudes towards methods [4]. In that study, which did not focus on the postpartum period, users were more likely to have positive opinions of FP than non-users. Data from PPFP Choices suggest that belief in myths, misconceptions and stereotypes may be overpowered by some other factor when women have high parity.

While an abundance of qualitative studies demonstrate a persistence of myths, misconceptions and stereotypes about family planning among women, few studies attempt to demonstrate the relationship between these beliefs and contraceptive uptake. This study has the opportunity to combine qualitative and quantitative learnings to better understand how FP knowledge influences uptake in Indonesia. In the coming months, we will further explore these relationships using the complete dataset from the postpartum interview and preliminary data from the study's six-month follow-up interview.

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