

Development and Validation of a Fertility Norms Scale in a rural community in Maharashtra, India

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Family planning programs emphasize on measuring contraceptive behaviors, but often neglect the motivations and expectations around fertility driving contraceptive use. We developed a scale to measure fertility norms and examined its reliability and validity in a rural community in Maharashtra, India. Data were analyzed from 1025 married women from a cross-sectional survey in the Pune district. A 10-item Fertility Norms Scale (FNS) was developed to capture internalized expectations and pressures around childbearing on newly married couples based on previous qualitative work in the community and guidance from experts. We conducted exploratory factor analyses to understand factor structure, and assess the internal consistency reliability and construct validity. Women participants were relatively young, had married early with high proportion reporting up to 10 years of schooling, and of Hindu religion and marginalized caste. Overall α for the FNS was 0.71, with EFA revealing three factors ($\alpha=0.6$, 0.69 and 0.66) despite strong evidence of uni-dimensionality. FNS was associated with greater likelihood of marriage before 18; suicidal ideation and fertility intentions demonstrating construct (convergent) validity. FNS can be an important instrument to understand motivations around fertility demonstrates good reliability and internal validity but needs to be tested in more contexts for greater external validity.

Background and Theory: Despite multi-sectoral efforts to increase access to family planning services, contraceptive use in low-and-middle-income countries continues to be impeded by several structural and social barriers. The FP2020 Progress Report shows that compared to 822 million reproductive age women in 2012, family planning programs needed to meet the needs of 942 million reproductive age women across 69 high-focus countries in 2020ⁱ. Across many of these contexts, family planning surveys and programs focus disproportionately on understanding contraceptive use, without adequate attention to motivations and preferences underlying that use. In particular, the role of gender-related determinants, sociocultural dimensions and interaction of the two in the form of social norms that may enhance or impede contraceptive behaviors and use remained understudied. Research to understand community beliefs and norms is increasingly growing in the fields of childcare, women’s work and political participation, this body of evidence in the field of family planning has been lagging. A major reason for the lack of attention to norms in family planning has been the unavailability of well-tested measures to understand norms related to fertility, sex, family size, contraception use and health seekingⁱⁱ. Examining the role of these norms can provide insight into the enabling environment within which women and couples make contraceptive choices and decisions, and contextualize our understanding of contraceptive behavior and use.

This study aimed to develop and validate a novel measure of fertility norms focused on childbearing pressures or expectations from couples, particularly to have children early in marriage, and towards delays in childbearing. Norms may be defined as “*unwritten codes and informal understandings that define what we expect of other people and what they expect of us.*” (Young 2015). These norms, imbibed through socialization and social interactions, enforce a degree of order or conformity that is sustained by social pressure, sanction or fear of sanction, signaling membership in a group and through role modeling. (Young 2015) Norms can be categorized as *descriptive* (perception of what is typical or normal) versus *injunctive* (perception of what is expected or considered morally approved or disapproved conduct). In this study, we focus on fertility norms defined as expectations around childbearing from an individual or couple, accompanied by perceptions regarding positive or negative consequences faced if and when those are met or unmet. For parsimony in construct, we exclude aspects of family size, when to use contraception, acceptability of contraceptive method and preference for the male child in this study.

Data and Research Methods: We used data from the CHARM2 COVID cross-sectional survey conducted in the Junnar Taluka of Pune district of Maharashtra in Jan 2021. Data were analyzed from 1025 married women (ages 15-49 years) who participated in the survey. While the main purpose of the survey was to examine health seeking in times of COVID, the survey embedded fertility norms items for testing and validation. We developed a 10-item Fertility Norms Scale (FNS) based on insights and learnings from past qualitative work in the community, a review of existing measures on family planning normsⁱⁱ and conversations/discussions on fertility norms with experts. The FNS items examined pressures on couples for childbearing soon after marriage; pressure, stigma and pity experienced by couples who do not have children within an acceptable time frame in the community; lack of acceptance for couples who may choose not to have children and pressure by parents of the couples. Responses were coded on a 5-point Likert scale ranging from strongly agree to strongly disagree. We examined reliability of the scale using Cronbach’s alpha and conducting exploratory factor analysis to examine the factor structure of the scale. We examined construct (convergent) validity of the FNS using correlations with key constructs and outcomes where associations may be expected.

Expected Findings: Survey participants in the CHARM2 COVID survey were young women (mean age 26 years), who had married early (mean age at marriage 19.4 years), with a substantial proportion reporting 10 years of schooling (41.5%), Hindu religion (92.4%) and marginalized caste (29.7%). The Fertility Norm scale was normally distributed, with values ranging from 10 to 45, with mean of 29.05 and standard

deviation of 5.08. The overall α value for the FNS was 0.71, showing high internal consistency reliability. We used exploratory factor analysis to examine the factor structure, that led to 3 sub-dimensions of the construct. These three sub-constructs demonstrated α values of norm of 0.6 (expecting married couples to necessarily have children), 0.69 (parental pressure for childbearing soon after marriage) and 0.66 (speaking badly of men and women who have not had a child within an acceptable period). These sub-dimensions however need further exploration and at present the measure demonstrates a unidimensional construct. Our examination of construct validity of the FNS yielded mixed results. We found that higher fertility norm scale (lower pressure) was associated with lower likelihood of suicidality ($p=0.001$), lower likelihood of marriage before 18 years ($p=0.04$), lower likelihood of reporting current sterilization ($p=0.02$) and greater likelihood of currently trying to prevent a pregnancy ($p=0.02$). In the study, we did not see associations of fertility norms with reported self-rated physical or mental health, number of living children in the household and current use of modern contraception.

Table : Items on the Fertility Norms Scale

In my community, it is expected for newly married couples to have a child soon after marriage.
In my community, it is expected for all married couples to have children.
In my community, people feel a lot of pity for married couples who are unable to have children.
In my community, people speak badly of married women who have not had a child after two or more years of marriage.
In my community, people speak badly of married men who have not had a child after two or more years of marriage.
In my community, people will think there are marital or health problems if a couple has not had a child after two or more years of marriage.
In my community, it is unacceptable for couples to choose not to have children.
In my community, it is common to ask married couples without a child when they will have children.
In my community, it is common for parents of the bride to pressure couples to have children soon after marriage.
In my community, it is common for parents of the groom to pressure couples to have children soon after marriage.

ⁱ FP2020. (2020b). FP2020 THE ARC OF PROGRESS 2019–2020.

http://progress.familyplanning2020.org/sites/default/files/FP2020_ProgressReport2020_WEB.pdf

ⁱⁱ Bhan N, Thomas E, Dixit A, Averbach S, Dey A, Rao N, Lundgren RL, Silverman J, Raj A. (2020). Measuring Women’s Agency and Gender Norms in Family Planning: What do we know and where do we go? EMERGE [Evidence-based Measures of Empowerment for Research on Gender Equality. Center on Gender Equity and Health (GEH).