EXTENDED ABSTRACT

Traditional or Modern Contraception? Association between Health Worker Contact and Contraceptive Choice in India: Findings from the National Family Health Survey 2019-21

Background

Despite increasing availability, lower cost, and substantial policy and programmatic efforts to increase modern contraceptive uptake, traditional contraceptive use remains common in many low and middle income countries. Traditional contraception methods refer to contraceptive knowledge and practices used by communities, prior to the advent of modern medicine, and which often have cultural, religious or social origins. These methods continue to be widely practiced and be acceptable in South Asian and sub-Saharan African contexts. Nearly 10% of women globally are reported to be using traditional contraception, which amounts of 53 million women using the withdrawal method, 33 million using the rhythm method and 17 million using other traditional methods.

In India, traditional contraception use has noted an increase, and explaining this rise poses a puzzle for FP practitioners and service providers, who often consider the use of modern contraception as the only markers of program success. This trend remains unexplained given rising acceptability and use of modern contraceptives and increasing agency of women in reproductive health. Studies to understand determinants of increasing traditional use have examined socioeconomic factors explaining this rise in use, but have not considered health systems determinants, such as health worker outreach and its role in explaining contraceptive choice. Community health workers (CHWs) are considered the backbone of health systems across the world, and play an important role in the dissemination of information and enabling access to all contraception, both traditional and modern. Contact with health workers can also be a marker of connectedness of women with their health systems.

This study examined whether contact with community health workers was associated with contraceptive choice and whether this contact explains consistent use and switching between methods.

Methods

We used data from the fifth wave of the National Family Health Survey (NFHS-5), a nationally representative cross-sectional survey in India in 2019-2021. Data for the NFHS were collected using a multi-stage stratified sampling design and estimates using the survey are representative at the national, state, and district levels. This study utilized data from currently married, non-pregnant, and non-sterilized women age 15-49, resulting in a final analytical sample of n=306,037 women.

The primary predictor of interest was contact with a community health worker (CHW) within the past three months. CHWs include auxiliary nurse midwives (ANM), lady health visitors (LHV), *anganwadi* workers, accredited social health activists (ASHA), and 'other community health workers'.

Current contraceptive use was assessed via the question "Which of the following methods have you used within the past three months?", with 16 possible responses; respondents could select multiple methods. Traditional methods listed included rhythm, withdrawal, and "other traditional method". Modern methods included female and male sterilization, as well as the spacing methods pill, IUD, male condom, female condom, injectable, diaphragm, foam or jelly, emergency contraception, lactational amenorrhea (LAM), standard days method (SDM), and "other modern method". We constructed a binary measure of current traditional method use (yes or no), as well as a four-level categorical measure of no use, traditional method use only, modern method use only, or concurrent use of both a modern and traditional method. We also assessed change in contraceptive use in the prior three months via reproductive calendar data,

defined as: (a) current non-use, (b) consistent modern method use, (c) consistent traditional method use, (d) switching from traditional to modern method use, and (e) switching from modern to traditional method use.

We examined the prevalence of current modern and traditional contraceptive use across Indian states and districts. Bi-variate associations were examined between CHW contact and contraception method type reported, as well as with key identified sociodemographic covariates such as women's age, education, caste/ethnicity, parity, and age at marriage; household wealth, urban/rural residence, state, and joint vs nuclear structure; and husband age, work status, and migrant worker status. We also examined two measures of health system engagement, namely (a) discussion of contraception during the recent CHW engagement and (b) knowledge of common modern spacing contraceptive measures (condom, pill, and IUD). Multivariate multinomial logistic regression models were used to assess the association between CHW contact and current contraceptive use, as well as between CHW contact and contraceptive switching and consistent use, adjusting for covariates and state fixed effects. We also examined the reasons provided by women for switching and discontinuation of contraception to gain insight into contraceptive choice.

Results

One-fifth of married non-pregnant and non-sterilized women (22.1%) reported current use of traditional methods, including 13.4% rhythm method, 12.2% withdrawal method, and <0.1% other traditional methods (note that women could report use of multiple methods). There was significant variation in traditional method use by state and by district. Traditional method use was significantly higher among older women, those with lower education, higher parity, urban residence, nuclear household residence, and knowledge of modern contraception. Traditional contraceptive use was also significantly higher among women who had not had any contact with a CHW in the past three months (22.5% vs. 21.4% among women who had met a CHW, $p<0.001$).

Two in five women (39.5%) reported meeting a CHW within the prior three months. CHW contact was reported more frequently by younger, more highly educated, poorer, scheduled caste/scheduled tribe, and parity one women, as well as those residing in joint family structures and rural areas, and those with knowledge of modern contraception.

In adjusted models, compared to non-use of contraception, recent contact with a health worker was associated with lower use of traditional contraception [ARRR=0.86 (95% CI: 0.82-0.89)], higher use of reversible modern contraceptive methods [ARRR=1.18 (95% CI: 1.14-1.22)] and concurrent use of both traditional and modern methods [ARRR=1.22 (95% CI: 1.13-1.31)]. We found that, in adjusted models, recent CHW contact was associated with higher likelihood of consistent use of modern contraceptive methods [ARRR=1.20 (95% CI: 1.16-1.24)] and lower likelihood of consistent traditional contraceptive method use [ARRR=0.87 (95% CI: 0.84-0.90)]. Recent CHW contact was also associated with greater likelihood of switching from traditional to modern use [ARRR=1.85 (95% CI: 1.30-2.63)], while there was no association with switching from modern to traditional method use [ARRR=1.13 (95% CI: 0.82-1.55)].

Discussion and Conclusions

Our study showed that traditional contraceptive method use remains common in India, with significant variation in use across states and districts. Traditional contraceptive use was more commonly used by older and higher parity women, women with lower levels of education but higher knowledge of modern methods, those living in joint families and in urban areas. These findings demonstrate complex patterns of use, and indicate the need to question narratives that view traditional and modern methods as substitutes.

Indeed, our findings indicate that traditional methods often tend to be used concurrently with modern contraception.

In our study, CHW contact, a marker of connectedness with the health system, was associated with greater current use of modern contraception as well as of concurrent use of both traditional and modern methods. CHW contact was also associated with greater consistent use of modern contraceptive methods, and higher switching from traditional to modern methods. Our findings reassert the importance of the health system in enabling the uptake of contraception, ensuring its consistency in use, and enhancing choice via a switch when women want an alternative. Our work also indicates the possibility that contact with the health system may bolster women's agency, increasing the resources and confidence to make contraceptive choices. Understanding the reasons for uneven access to CHW contact and taking measures to enhance service outreach can have important implications for women's contraceptive use, as well as for greater equity in health service access.

This study is among the few studies that unpack the use of traditional contraception and examine the role of health systems in enabling choice. In addition to understanding current contraceptive use, the study also uses the reproductive calendar data to examine data for switching and discontinuation of contraceptive methods, showing the importance of understanding dynamic patterns of use. We limited our analysis to a three month period for which data on CHW contact were available, thus reducing recall bias. However, our findings should be considered in light of the following limitations. Firstly, while the three month cut-off to examine use has advantages in terms of recall bias, it does limit our understanding of outreach, as it is possible that there is health worker outreach beyond this specific time period that influences contraceptive choice and use. Secondly, while we examine the role of CHW contact, the NFHS data do not include adequate information on the nature, tone, or communication dynamics of these interactions. These aspects have important implications for use which merit further investigation.

CHW contact was associated with higher concurrent use, and women who used traditional methods also reported higher knowledge of modern methods. Both these insights show that women may be using traditional methods in addition to modern contraception, and in fact switch when desired to modern contraception, demonstrative of enhanced agency. We believe that there is a need to consider carefully the reason for and timing of these choices, in order to enhance the basket of choice for women, including via CHW outreach and contact, to enable greater agency of women in FP choices.