Person-centered Quality, Provider Involvement and Family Planning Continuation in India and Kenya: Context Matters

Abstract:

Introduction: Quality of care of family planning provision has many dimensions, and measuring and understanding these different components is challenging. Furthermore, understanding which components are most important for women's experiences and method continuation is essential for improving the quality of care provision.

Methodology: We use longitudinal data from India and Kenya to explore the impact of different measures of quality (provider preference, provider involvement, and a scale of person-centered care experiences) on method continuation. We also look at associations between the quality measures and discuss why different measures may be more salient in different contexts.

Results: We find that a woman's person-centered care experience is associated with continuation in Kenya, but not in India. Analysis of person-centered quality by subscales found that Health Facility Environment related factors were associated with continuation, and the Autonomy, Respect and Communication subscale was not. In India, providers having a strong preference is associated with continuation.

Discussion: Certain measures of person-centered quality appear to impact family planning continuation, but differ by country. Socio-cultural factors such as power

dynamics and gender norms likely impact expectations, and need to be considered in interpreting and choosing quality measures.

Introduction:

Quality of care is assumed to matter for women taking up a family planning method and continuing with it. Few studies have, however, rigorously assessed what aspects of quality determine family planning continuation. A recent systematic review of interventions focused on person-centered care for family planning found that most interventions were successful in increasing client knowledge about family planning and overall experience, but results were mixed for family planning uptake and continuation (1). One challenge with understanding the impact of person-centered care on outcomes is measurement, especially when aiming to compare across countries or studies. No study to date has used a validated person-centered quality of care scale to measure women's experience and examined its associations with family planning continuation across two different populations.

Person-centered family planning care (PCFP) refers to care that is, according to the Institute of Medicine, "respectful of, and responsive to, individual patient preferences, needs and values" related to family planning services (2). Recently, a validated measure of PCFP was developed to provide a comprehensive and cohesive tool for researchers interested in examining the impacts of PCFP on health outcomes and interventions (3). The scale was validated in Kenya and India and

includes constructs related to dignity and respect, autonomy, privacy/confidentiality, health communication, social support, supportive care, trust, and health facility environment. The study identified two subscales for the PCFP scale relevant to both Kenya and India: 1) "autonomy, respectful care, and communication" and 2) "health facility environment" (3,4). This scale provides a useful tool for research on PCFP outcomes.

Previous studies have largely overlooked the role of women's healthcare experiences on their family planning use and continuation. Some studies have, however, examined perceived quality of family planning care, as well as individual domains of PCFP, and family planning continuation. It should be noted here that method continuation is not necessarily the best measure of a "good", person-centered, family planning related outcome. On one hand, discontinuation, particularly within a relatively short period, might indicate inadequate assessment of method fit before a woman is started on a particular method. However, because some methods may not be the right fit for specific women or women's desire to delay pregnancy might change, switching or discontinuing may be a more appropriate person-centered outcome measure. This being said, for the purposes of this analysis, we focus on continuation given the relatively short follow up time (8-10 weeks) and common use of this measure in the literature as an indicator of family planning "success."

A number of studies have found that perceived quality of family planning care is associated with family planning client satisfaction, use and/or continuation (5–10). One study in Egypt tested a client-centered communication model among 31 urban, family planning clinics to ascertain feasibility and acceptability among providers and clients (9). Through analyzing audio-recordings of clients and providers interacting in these models, the researchers document that those interactions in the client-centered model (where all statements made by provider were client-centered) yielded higher client satisfaction. The researchers did not test these models, however, for associations with family planning use or continuation. In Bangladesh, Koeing et al conducted prospective study involving 7800 women of reproductive age, who were surveyed after seeking care at a family planning facility. They found that women who perceived higher quality of care were more likely to adopt a method and continue to use that method than those women who gave a low quality score (10). Specific dimensions of quality of care were not assessed.

No study to date has used a comprehensive person-centered family planning care scale to explore the association between quality and family planning use. Several studies, using a variety of different indicators, have shown that a few dimensions of person-centered care are associated with family planning uptake and continuation (5,7–9,11). For example, in the Philippines, researchers longitudinally assessed the quality of care received during new client family planning visits (6). They developed a family planning quality index scored by client responses to 24 questions, of which six questions are similar to those found in the PCFP validated scale. Respondents

were then classified as having received care of low, medium or high overall quality, according to their index score. Following the cohort up at 16 months, and after controlling for sociodemographic characteristics, the research team found that the quality of care received at the time a woman adopted a family planning method influenced her family planning use at follow-up. Another study from Egypt that examined quality of care and family planning continuation found better quality associated with higher likelihood of still using a method at follow-up. Despite a very limited measure of quality with only one PCFP-related item (presence of female doctor), the multi-level, clustered model analyses revealed that lack of female doctors at health facility are associated with a high risk of family planning discontinuation (7).

Two recent studies from the United States and Nigeria also document that certain aspects of quality during family planning visit are associated with family planning continuation (5,8). Dehlendorf et al longitudinally followed a cohort of family planning users over 3 years in San Francisco Bay Area of California and documented that perceived and observed interpersonal quality of care were strongly associated with higher likelihood of continued family planning use. In particular, two quality measures from the validated 4 Habits Coding Scheme employed during researcher coding of audio-recorded patient-provider encounters were specifically associated with family planning continuation: "invests in the beginning" and "elicits the patient's perspective" (5). A recent study in Nigeria examined sociodemographic and quality of care predictors of continuation of Sayana Press, at 3 months among a

convenience sample of urban Nigerian users (8). Measuring quality of care using a three-dimensional scale that include items related to information given, interpersonal and choice, the researchers document an association between higher quality counselling and method continuation. Specifically, their results indicate that women who rated their initial counselling as high were more likely to still be using the injectable at three months. Of note, one indicator that stood out in this study was the provider's level of involvement in a woman's decision about which method to adopt—a commonly used quality indicator. Most past studies have considered high scores on provider involvement as being indicative of provider pressure, and thus a sign of low person-centred quality of care (4). However, in this study, women reported high levels of provider involvement alongside high rankings for other quality indicators, suggesting that they viewed this as a marker of high quality of care (8,12).

While these studies use some PCFP-related items, a comprehensive approach is needed to fully understand the relationship between PCFP and family planning outcomes. Our study adds to the evidence on the association between person-centered quality and family planning outcomes, such as continuation, using a validated measures of person-centered quality, along side other measures previously used to understand the client's experiences, namely, provider involvement and provider strength of preference. Furthermore, we compare how the impact of person-centered care differs by context, as this measure has been validated in two countries: India and Kenya.

Methodology

Setting

This study uses data from women who adopted a modern family planning method from health facilities in Uttar Pradesh, India and Nairobi area, Kenya (described in more detail below). The study is part of a five-year reproductive health quality improvement project in the two countries, and these data are from the baseline surveys in each country. India and Kenya were purposefully selected to generate comparison across different cultures and contexts. (3). Ethical review and approval of all study documents was provided by the respective research institutions in each country and coordinating US-based university.

In India, the study was administered in nine peri-urban secondary level government health facilities across two districts in Uttar Pradesh. The study sites ranged from a 30-bedded Community Health Centers to a four bedded Primary Health Centers. All are government health facilities and provide free family planning services including pills, condoms and IUDs. Women who adopted sterilizations were dropped from this analysis. Facilities in India had low family planning case loads ranging from 7 to 166 cases per month based on health system data for the facilities from July-September 2017 (Ministry of Health and Family Welfare, Government of India, 2017).

In Kenya, seven government health facilities located in urban Nairobi and peri-urban Kiambu Counties participated. Facilities varied from high volume referral hospitals with over 400 family planning patients per month to mid-level health centers with approximately 120 family planning patients per month. Family planning services provided at these facilities include short-term and long-term methods including pills, injection, implant, IUCD.

Surveys

The family planning client survey included questions on demographics, birth history, and current family planning method, in addition to the PCFP indicators. Data were collected and stored on tablets using the SurveyCTO platform, and uploaded on the same day to a secure/encrypted server upon obtaining internet connection. Data collection was monitored through a range of quality assurance checks throughout the survey, including interview observations, high frequency checks, backchecks and spot checks by field supervisors.

In each country, a team of six female enumerators underwent a one-week training on the study topic, quantitative data collection methods, best practices for surveying, informed consent and recruitment, and the survey tool itself. Then, the team went to the field for piloting for one week in Kenya and two days in India.

Recruitment procedures and eligibility criteria are thoroughly described in the recent PCFP validation paper (3). To summarize, the eligibility criteria were women

who had obtained a modern family planning method at the facility on the day of recruitment aged 18-49 years in India and 15-49 in Kenya. This criteria excluded women coming in for a new pill pack due to the limited interaction that may be involved, but included women starting pills as a method or starting a new type of pills. In Kenya, one additional eligibility criteria was introduced, that she had her own functioning mobile phone at time of the interview with one of the two most common networks. This additional criterion was used because we conducted mobile phone follow-up surveys as part of the larger study, and the incentive (i.e. airtime credit) to appreciate their participation was sent to their phones.

In India, survey data was collected between September 2016 and March 2017 in a phased manner across the nine selected facilities. Based on available government family planning service data, the target sample size was set at 88 women per facility. However, the actual user numbers were much lower than indicated in the available secondary data. Despite extending the data collection timeline and near-universal enrolment of all eligible women at each facility, a much lower family planning sample was achieved in India than initially anticipated. No refusals or drop-outs occurred during the survey. All interviews were conducted in Hindi, and in a secluded space within the facility. Per the recommendation of local partners, no incentive was given in India. At the end of the interview, women were requested for brief, follow-up phone survey at six weeks post baseline. All respondents agreed to the follow-up survey. A total of 225 women were interviewed in the baseline, of

which 179 women were also followed up after 6 weeks (loss to follow-up was due to wrong numbers or women not answering the phone after multiple attempts).

In Kenya, surveys were conducted between August and December 2016 across all seven participating health facilities. Respondents had the option to proceed with the interview at a private space on the facility premises or at their home within a few days. A total of 941 women were recruited, 320 of whom were found to be ineligible (did not have a functional phone or did not receive a family planning method at their visit), 95 refused to participate (not interested or did not have time), four began the survey but did not finish, and 522 completed the family planning survey, with 520 interviewed at the facility and 2 at home. The consent, as well as the survey, was conducted in the respondent's language of choice including English, Swahili, or a mix of the two. Those who participated in the survey were given airtime credit equivalent to approximately $1.50 as appreciation for their participation. During mobile follow-up surveys, a brief questionnaire of approximately 10 items was sent to their phones as a text message through a platform called mSurvey. Respondents were able to respond to each question through a free text message response. This platform was introduced to participants at the initial survey so that it was familiar when follow-ups were received. Follow-up surveys occurred at 4 weeks, 6 weeks, 8 weeks, and 10 weeks after the initial, in-person survey. For each follow-up survey, between 64% and 67% of the 522 respondents completed all questions. Airtime equivalent to approximately $0.20 was given after the completion of each follow-up survey.

Variable construction

Dependent variable: The primary outcome of interest in this analysis is whether women were still using the family planning method that they adopted at baseline at the follow-up interview. All women in the sample adopted a method at baseline. The follow-up question simply asked if they were still using the method they adopted at baseline (with no information about stops/starts). Women who had switched to another method (N=7 in Kenya and N=8 in India) were dropped from the analysis. We use data from follow-up interviews conducted at 6 weeks in India and 8 weeks in Kenya (comparable data was collected at 6 weeks in India and 8 weeks in Kenya).

Independent variable: Three main quality indicators are examined for their association with method continuation in this analysis. The first is a binary variable on whether a woman reported that her provider was involved the right amount (compared to the provider being involved too much or too little), henceforth referred to as the provider being sufficiently involved (5,8). The second quality indicator is a binary variable created from a question on whether the woman felt that her provider had no, slight, moderate, strong or extremely strong preference for what family planning method she adopted. The binary grouped moderate/strong/extremely strong preference together, with the comparison group of no/slight preference (6).

The third quality variable examined is a summary score of the Person-Centered Family Planning Scale (PCFP). The development and validation of the scale in India and Kenya is described in detail elsewhere (3). The two domains identified for each country were "Autonomy, Respectful Care and Communication" (ARCC) and "Health Facility Environment" (HFE). Example items from the ARCC domain includes trust in her provider, whether the providers introduced themselves, whether the provider called the woman by her name, whether she received respectful care, and whether she was involved in her care. Sample questions from the HFE domain included whether the facility had water, was safe, free from bribes, and had clean facilities. The PCFP scale has 22 items in India and 20 in Kenya, with 17 items in the ARCC subscale in India and 14 items in Kenya. The HFE model includes 5 items in India and 6 items in Kenya. A summary PCFP score was created for each country using the validated scale from each country. Additionally, scores for the two country-specific subscales that emerged from validation process were created (3).

Socio-demographic covariates

We included the following variables: age, marital status, education, parity, household wealth, caste or tribe, and religion. The inclusion of these covariates was motivated by our theoretical framework and previous findings about factors associated with family planning continuation and women's experiences of quality. Age was modeled as a continuous variable. Education was grouped into three groups (no school/primary, secondary/vocational, college or above). Parity was grouped into 4 groups: 1 child, 2 children, 3 children and 4 or more (no women in

either country had no births). We created a wealth quintile for each country. In Kenya, this was constructed using principal components analysis based on a score of assets. This data was not available for India, and thus, a wealth quintile variable was constructed by making a quintile of women's reports of their total household income. A variable for caste was included for India, which was a binary with low caste groups (Scheduled Caste, Tribe and Other Backward Caste) compared to high caste groups ("General" category). Tribe was included in Kenya, in which respondents self-identified as one or more of the 42 tribes of Kenya, and a binary variable was created of the dominant tribe compared to all others. A binary variable was created for religion, with the dominant religion in each country (Hindu in India and Christian in Kenya) compared to all other minority religions.

Analyses

All analyses are run for each country separately. First, we describe the three quality variables and socio-demographics by method continuation status in each country (Table 1). We then explore the correlation between the three quality measures (Table 2). Next, three separate Penalized maximum likelihood regression models are run for each country, first without controlling for potential confounders and then controlling for socio-demographic variables, looking at the association between the three quality measures and family planning continuation (Table 3a and 3b). Penalized maximum likelihood regression models (using firthlogit) were necessary because discontinuing was a relatively rare event, and the overall sample sizes were also fairly small. Finally, we explore if there are differences in the associations with

family planning continuation by PCFP sub-scale, again using a penalized maximum likelihood regression (Table 4). All analyses are run using STATA 15.

Results

Mean age was fairly similar in India (25.6 years) and Kenya (26.9 years) (Table 1). Educational status was also roughly similar between the two countries, although India had fewer women who had no school or only primary education (18.3% in India compared to 36% in Kenya). About two-thirds (69.6%) of the Kenyan sample was married, compared to all of the Indian sample. Most women in the India sample were in the dominant, low caste groups (77.8%) and in the primary religion (Hindu, 94.3%). But only a third of the women in the Kenya sample were in the dominant tribe (38.7%), and about half were in the dominant religion (Christian, 54.2%). Women in the India sample had more children than the women in the Kenya sample. There were also more women in the lower wealth quintiles in the Indian sample than in the Kenya sample. In India, the majority of women received IUD (87.2%), with 13 (7.6%) receiving condoms and 4 (2.3%) oral contraceptive pills. There was more method mix in Kenya, with close to half (48.0%, N=146) receiving injections/depo provera, about a third (31.8%, N=97) oral contraceptive pills, and the rest receiving implants, (16.1%, N=49) and IUDs (3.9%, N=12); Only 1 person (0.3%) received a condom.

Socio-demographic characteristics by continuation status

Fewer women discontinued in Kenya (6.7%) compared to India (11.6%) (Table 1). In Kenya a greater proportion of less educated women discontinued but there was no clear pattern for family planning continuers in India by educational status. Women with post-primary education represented largest proportion in both country of family planning continuers. A greater proportion of married women were continuers than non-married women in Kenya (all women were married in India). A greater proportion of discontinuers were low caste women in India, compared to continuers; the proportions were similar among majority and non-majority tribal women by continuation status in Kenya. Few differences by age, religion or wealth emerged in either country.

Quality measures by continuation status

As can be seen in Table 1, in India women who reported that the provider was sufficiently involved were more likely to have continued (46.4% compared to 34.2%). The reverse was true in Kenya, where a greater proportion of women who discontinued (65.2%) reported that the provider was sufficiently involved, compared to women who continued (57.1%). On average, more women in India, (61.2%) said that they wished their provider had been more involved (only 1.3% desired them to be less involved), whereas in Kenya 20.3% of women wished their provider had been more involved (and 12.1% wished the provider had been less involved) (data not shown).

On average, a much higher proportion of women in India (compared to Kenya) reported that the provider had a strong or very strong preference for what method they choose, with 94.1% of women who continued and 82.1% of women who discontinued reporting moderate/strong/extremely strong preference (Table 1). In Kenya, 13% of women who continued and 16% of women who discontinued reported that the provider had a moderate/strong/ extremely strong preference. Overall, the vast majority (90%) of women in Kenya said the provider showed no/slight preference, whereas only 11% of women in India reported this experience.

The mean PCFP score was similar between women who continued and discontinued in India (57.9 and 58.4, respectively) (Table 1). There was, however, a larger gap in mean PCFP scores in Kenya, with a mean score of 42.7 among women who continued, compared 37.2 for women who did not continue. For the sub-scales, there was a small difference in mean scores for the HFE subscale in India (11.3 among continuers and 10.7 among discontinuers). In Kenya, continuers had a mean HFE subscale score of 14.1 and discontinuers a mean of 12.2. In India, continuers had a slightly lower mean score on the ARCC subscale (46.6 compared to 47.7), and in Kenya this was reversed with continuers having a higher score (28.6) compared to discontinuers (25.1). Differences were statistically significant in Kenya only. We created a standardized score to be able to compare scores between the two countries (between 0-100)—PCFP scores were higher overall in India than Kenya, by over 15 points.

Correlation between quality indicators

In Kenya, PCFP score was significantly correlated with provider involvement; provider involvement and provider preference were also significantly correlated (Table 2). In India, provider involvement and provider preference were significantly correlated.

Quality and continuation: three different measures

In India, after controlling for the socio-demographic factors, only the provider having a moderate/strong/extremely strong preference for a specific method was associated with increased odds of a woman continuing her method at 6 weeks (OR=4.11, p<=0.05) (Table 3a). In Kenya, after controlling for the same socio-demographics, each point of increase in a woman's PCFP score (higher quality) increased her odds of her continuing her method at 8 weeks by 8% (OR=1.08, p<=0.01) (Table 3b).

PCFP sub-scales

In Kenya, we found that, after controlling for socio-demographic factors, only the HFE sub-scale was associated with continuation (OR=1.341, p<0.05); the ARCC sub-scale was not (Table 4). There was no association between either subscale and continuation in India (data not shown).

Discussion

This study shows the associations between women's reports on three measures of person-centered family planning and method continuation in two settings. It extends our understanding of how different aspects of quality are associated with method continuation. We find that when other factors are accounted for, scores on the recently validated PCFP scale are associated with continuation in Kenya, but not in India. On the other hand, provider preference is associated with continuation in India, but not in Kenya. Overall, our results suggest that certain aspects of PCFP impact a woman's likelihood of continuing her method; however, these factors may not be the same for all populations. This begs the question as to why we see these differences.

Our findings in Kenya are consistent with past literature. For example, a study in Kenya examining similar items found that providers giving information on side effects, seeking client preferences, interpersonal treatment of clients, and assisting with method selection were all significantly associated with an increased likelihood of current modern contraceptive use among family planning clients in five urban Kenyan cities (11). The effects in this study were more pronounced among younger and less educated women in their urban Kenya sample (11).

In India, our findings indicate that strong provider preference is associated with continuation. While not exactly the same outcome, other studies in India have shown discrepant results, where provider and client preferences were not aligned.

Specifically, a study from the Indian Council of Medical Research (ICMR) Task Force (2000) found from observations of patient-provider interaction during family planning visits at government facilities that while providers preferred Norplant for 35% of women, only 5% of clients preferred and accepted Norplant, and 60% of clients accepted IUD (13).

The rationale behind the inclusion of the question on provider preference in a set of questions about person-centered quality was to assess provider pressure. A strong body of work in the US has used this measure and interpreted clients reporting that the provider had a strong preference as a sign of poor quality of care (5,14). One study assessed predictors of implant discontinuation within first six months following insertion among family planning clients in three American cities and found that perceived pressure by a healthcare provider to choose an implant significantly predicted early implant discontinuation (14).

The cultural context may, however, explain the finding in India that women both wanted their providers to be more involved, and that having a provider with a strong preference for what method they adopted was associated with increased odds of method continuation. For example, it is possible that women in India want their providers to give them more advice, tell them which method they think is "right" for them, and therefore such involvement makes women feel more confident in their method choice and thus are more likely to continue. Women wanting their providers to be more involved and to express strong preferences could also be

related to a societal "respect" for people who are older or of a higher social class, as is traditional in India and other Asian countries (15,16). Our findings are consistent with the previously cited study in Nigeria, where women who reported high ratings among other quality indicators also reported that the provider had a strong preference, suggesting that strong provider preference was an indicator of good quality (8).

Additionally, given India's history of restrictive family planning programs, it is possible that women have developed cultural health capital strategies that focus less on interaction with doctors and more on providers telling women what to do (17). India has a long history of coercive family planning programs, and it continues to be heavily target and incentive based (18). This, combined with more recent evidence of women being sterilized or inserted with PPIUCDs without their knowledge or consent, highlights that the meaning and impact of "strong" provider preference is important to understand (19,20). Considering the socio-cultural dynamics in India, especially related to hierarchies by caste, socioeconomic status, gender, and in this case, occupation (physician/nurse interacting with a woman who is most likely a poorly educated housewife), women might feel more pressured to remain on a method if their provider showed a strong preference. In this case, "provider preference" would be an indicator of poor quality, using the framework of interpreting provider pressure and bias for specific methods.

We also find, in Kenya, that the Health Facility Environment (HFE) subscale was associated with continuation, while the Autonomy, Respectful Care and Communication (ARCC) subscale was not associated with that outcome. This suggests that the interpersonal aspects related to how the facility staff and providers interacted with women were less impactful on women's experiences than having basic, facility related needs met. This sub-scale may also reflect facility infrastructure, which could be associated with availability of family planning supplies. This result is surprising because we hypothesized that interpersonal factors would be more important, especially for family planning where so much information is provided through counseling with a provider. Some past research has found that patients claim that HFE factors, such as a clean coat of paint, do not matter to them (21). Other studies have found the opposite, with process aspects of quality being more associated with provider satisfaction factors than structural aspects (similar to our HFE subscale) (22). Although unexpected, improving the HFE subdomain (cleaning up the facility, getting piped, clean water) is likely easier than improving subtler, more culturally normative domains like how people show respect and give clients autonomy. Also, these items are already often included in surveys measuring quality (for example the Service Provision Assessment collected by the Demographic and Health Surveys), and thus would require fewer changes to these on-going surveys or standard provider practices.

As with other studies, this study has a number of limitations. First, while a strength of the study is being able to compare across two different contexts, it also offers

limitations to interpretation. First, the method mix is different across Kenya and India, which in by itself will account for differences in continuation. The method mix is limited in India, with most women relying on sterilization. These women were dropped from our analysis, thus restricting our sample in India. Long acting contraceptives are limited to IUD – that is the only option given to women at India government health facilities– women who continue then are those who genuinely want to space births, and are supported by their partners/families. Additionally, many women in our sample in India were postpartum, thus there was high reliance on IUDs. In Kenya, the method mixed is more varied, and women mostly rely on injectables, pills and implants. Therefore, the types of interactions for patients using an IUD versus pill would be quite different. Because of the limited sample size, we are also unable to stratify by method. Additionally, we only follow up women 6-8 weeks after they have received their family planning method. It would be interesting to see if method continuation occurred after six months or longer. Third, while we include three measures of quality, other quality measures might also be important, including counseling quality and clinical quality. Finally, sample sizes, especially among discontinuers, were small, and longer follow-up may have led to larger samples. Our analysis accounted for this rare event, but larger samples in the two groups in each country could have been beneficial.

Additionally, we are unable to account for other factors that contribute to discontinuation such as availability, side effects, and partner acceptance.

Other limitations include biased estimates due to underreporting of poor care, as has been observed in other studies. Women may underreport due to social desirability or because of low expectations and acceptance of poor standards. There are also limitations from loss to follow-up in the follow-up surveys. Those who did not respond at the follow up may have done so because they had discontinued their method and did not want to report it. Finally, these data are not representative of any of the countries or even the districts in which data was collected, as they are based on convenience sampling approaches. However, these limitations are balanced by the strengths of this study, in that it uses a recently validated scale to measure PCFP, explores sub-scales, compares across two countries, and utilizes longitudinal data to avoid recall or other forms of bias.

The quality of care that women receive during their family planning visit impacts their method continuation. Person-centered care and experiences related to the role of providers appear to increase method continuation, although differences exist between contexts. We must think carefully about the measures that we are using to try to assess person-centered quality and client-provider interactions—especially considering how women in different settings might experience good quality differently than we may hypothesize based on our expectations of quality coming from a "western" framework. Taking this one step further, we then must situate how women are answering quality measures within the broader socio-cultural context including women's status in society, power dynamics especially between providers and clients, and the overall structure of how care is provided. This intersectionality

is especially true to measures related to the role of providers in women's decision-making about method choice and uptake.

Table 1: Method continuation by socio-demographic factors, N(%)

	India			Kenya		
	Total	Continued Method at 6 weeks	Did not continue method at 6 weeks	Total	Continued Method at 8 weeks	Did not continue Method at 8 weeks
Method use at endline	172	152 (88.4)	20 (11.6)	342	319 (93.3)	23 (6.7)
Provider sufficiently involved	65 (36.1)	52 (34.2)	13 (46.4)	145 (42.4)	182 (57.1)	15 (65.2)
Provider had a strong/very strong preference for what method I choose	166 (92.2)	143 (94.1)	23 (82.1)	54 (15.8)	51 (16.0)	3 (13.0)
PCFC score, mean (range)	58.14 (32-66)	57.98 (32-66)	58.42 (38-66)	42.25 *** (21-59)	42.67 (21-59)	37.2 (25-50)
PCFP subscale HFE mean (range)	11.26 (5-15)	11.34 (5-15)	10.74 (5-15)	13.97*** (6-18)	14.10 (8-18)	12.15 (8-17)
PCFP subscale ARCC, mean (range)	46.89 (21-51)	46.64 (21-51)	47.68 (30-51)	28.24 *** (11-42)	28.57 (11-42)	25.05 (16-35)
Standardized PCFP score,	88.09	87.85	88.52	71.61	72.33	63.05

mean						
Family Planning method adopted at baseline						
IUD/Coil	150 (87.21)	125 (87.21)	25 (92.59)	12 (3.93)	12 (4.21)	0 (0)
Injection/Depo provera				146 (47.87)	136 (47.72)	10 (50.00)
Implant				49 (16.07)	45 (15.79)	4 (20.00)
Pill	4 (2.33)	3 (2.07)	1 (3.70)	97 (31.80)	91 (31.93)	6 (30.00)
Condom	13 (7.56)	13 (8.97)	0 (0)	1 (0.33)	1 (0.35)	0 (0)
Age (in years), mean (range)	25.56 (18-40)	25.41 (20-40)	25.74 (21-35)	26.93 (16-46)	26.69 (17-46)	26.5 (19-36)
Education						
No school/Primary	26 (18.3)	20 (16.7)	6 (27.3)	109 (36.2)	96 (34.2)	13 (65.0)
Post-primary/ vocational/Secondary	76 (53.5)	67 (55.8)	9 (40.9)	124 (41.2)	118 (42)	6 (30.0)
College or above	40 (28.2)	33 (27.5)	7 (31.8)	68 (22.6)	67 (23.8)	1 (5.0)
Married	NA	NA	NA	241	225	16

				(70.56)	(70.5)	(69.6)
Caste/Tribe						
Low Caste/Other tribe	40 (22.2)	30 (19.7)	10 (35.7)	214 (61.3)	196 (61.4)	18 (60)
High Caste/Kikuyu	140 (77.8)	122 (80.3)	18 (64.3)	185 (38.7)	123 (38.6)	12 (40)
Religion						
Other	10 (5.7)	10 (6.7)	0 (0)	159 (46.5)	147 (46.1)	12 (52.2)
Hindu/Christian	166 (94.3)	139 (93.3)	27 (100)	183 (53.5)	172 (53.9)	11 (47.8)
Parity						
1	52 (29.5)	46 (30.9)	6 (22.2)	137 (46.3)	131 (47.3)	6 (31.6)
2	54 (30.7)	45 (30.2)	9 (33.3)	84 (28.4)	79 (28.5)	5 (26.3)
3	42 (23.9)	36 (24.2)	6 (22.2)	50 (16.9)	48 (17.3)	2 (10.5)
4 or more	28 (15.9)	22 (14.8)	6 (22.2)	25 (8.4)	19 (6.9)	6 (31.6)
Wealth Quintile						

Lowest	55 (34)	47 (34.3)	8 (32)	5 (1.7)	4 (1.4)	1 (5.0)
Low	28 (17.3)	26 (19)	2 (8)	41 (13.7)	38 (13.6)	3 (15.0)
Middle	21 (13)	17 (12.4)	4 (16)	64 (21.3)	60 (21.4)	4 (20.0)
High	22 (13.6)	17 (12.4)	5 (20)	145 (48.3)	136 (48.6)	9 (45.0)
Highest	36 (22.2)	30 (21.9)	6 (24)	45 (15.0)	42 (15)	3 (15.0)

*p<0.1, **p<0.05, ***p<0.01

Overall totals are for sociodemographic factors (row totals); Total for each country are per each row (each sociodemographic factor) while continued/discontinued results are presented by column

Table 2: Correlation between quality indicators: PCFP, provider involvement, and provider preference (pwcorr)

	India			Kenya		
	PCFP score	Provider involvement	Provider preference	PCFP score	Provider involvement	Provider preference
PCFP score	1			1		
Provider involvement	-0.201*	1		0.3187*	1	
Provider preference	0.0141	0.0324	1	0.0129	-0.389*	1

*<0.05

Table 3a: INDIA: Penalized maximum likelihood regression (firthlogit) of association between 3 quality indicators and continuation, controlling for socio-demographics, OR (Standard Error)

Outcome: family planning continuation						
PCFP score (continuous)	0.984	1.020				
	(0.0294)	(0.0423)				
Provider sufficiently Involved			0.600	0.707		
			(0.246)	(0.372)		
Provider had a strong Method Preference					3.535**	4.108**
					(2.051)	(2.599)
Age (in years)		1.074		1.088		1.083
		(0.112)		(0.118)		(0.118)
Education (compared to none/primary)						

Secondary		2.286		2.297		2.429
		(1.433)		(1.446)		(1.562)
College or above		2.002		2.061		2.233
		(1.430)		(1.478)		(1.625)
Wealth quintile						
Poor		0.861		0.905		0.732
		(0.747)		(0.788)		(0.649)
Middle		0.504		0.527		0.501
		(0.392)		(0.410)		(0.394)
Rich		0.537		0.600		0.458
		(0.390)		(0.448)		(0.348)
Richest		0.834		0.819		0.895
		(0.578)		(0.569)		(0.636)
Number of births (compared to 1)						
2 births		0.493		0.474		0.460
		(0.359)		(0.349)		(0.357)
3 births		0.363		0.347		0.360
		(0.323)		(0.312)		(0.331)
4 or more births		0.192		0.182		0.179
		(0.210)		(0.200)		(0.201)
Low caste		2.491*		2.505*		2.303

(compared to no caste)						
		(1.347)		(1.326)		(1.251)
Religion (Hindu compared to other)		0.524		0.588		0.599
		(0.777)		(0.880)		(0.887)
Constant	13.70	0.301	6.484***	0.734	1.727	0.224
	(24.23)	(1.253)	(1.769)	(2.138)	(0.925)	(0.671)
Observations	176	131	180	131	180	131

*p<0.1, **p<0.05, ***p<0.01

Table 3b: Kenya: Penalized maximum likelihood regression (firthlogit) of association between 3 quality indicators and continuation, controlling for socio-demographics, OR (Standard Error)

Outcome: family planning continuation						
PCFP score (continuous)	1.094***	1.082**				
	(0.0324)	(0.0365)				
Provider sufficiently Involved			0.728	0.689		
			(0.321)	(0.369)		
Provider had a strong Method Preference					1.123	3.167
					(0.672)	(4.771)
Age (in years)		1.140*		1.145*		1.155*
		(0.0865)		(0.0844)		(0.0857)
Education (compared to none/primary)						
Secondary		2.860*		2.632		2.838*
		(1.774)		(1.599)		(1.739)

College or above		6.306*		6.632*		6.898*
		(6.409)		(6.621)		(6.974)
Wealth quintile						
Poor		2.241		2.813		3.506
		(2.735)		(3.170)		(4.093)
Middle		2.321		2.444		2.919
		(2.696)		(2.631)		(3.253)
Rich		1.607		1.852		2.204
		(1.793)		(1.916)		(2.364)
Richest		0.371		0.798		0.805
		(0.489)		(0.976)		(1.018)
Number of births (compared to 1)						
2 births		0.789		0.782		0.746
		(0.523)		(0.512)		(0.490)
3 births		0.379		0.559		0.469
		(0.369)		(0.551)		(0.451)
4 or more births		0.104**		0.0877**		0.0781**
		(0.106)		(0.0879)		(0.0792)
Minority tribe (compared to majority tribe)		1.473		1.241		1.116

		(0.772)		(0.623)		(0.566)
Religion (Christian compared to other)		1.382		1.533		1.669
		(0.694)		(0.767)		(0.838)
Constant	0.375	0.00664***	16.18***	0.145	13.10***	0.0753
	(0.429)	(0.0158)	(5.717)	(0.295)	(3.001)	(0.152)
Observations	301	295	342	295	342	295

*p<0.1, **p<0.05, ***p<0.01

Table 4: PCFP subscales and family planning continuation (Kenya only), OR (Standard Error)

Outcome: family planning continuation	
PCFP sub-scale: Autonomy and Respect	1.005
	(0.0524)
PCFP sub-scale: Health Facility Environment	1.341**
	(0.166)
Age (in years)	1.161*
	(0.0925)
Education (compared to none/primary)	
Secondary	2.945*
	(1.850)
College or above	7.777**
	(7.787)
Wealth quintile	
Poor	2.579
	(3.311)
Middle	2.625
	(3.151)
Rich	1.663
	(1.919)
Richest	0.349

	(0.466)
Number of births (compared to 1)	
2 births	0.803
	(0.540)
3 births	0.368
	(0.372)
4 or more births	0.101**
	(0.107)
Low caste (compared to no caste)	1.364
	(0.723)
Religion	1.524
	(0.773)
Constant	0.00156**
	(0.00408)
Observations	295

*p<0.1, **p<0.05, ***p<0.01

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