

The Link Between Quality of Care and Contraceptive Use

Saumya RamaRao,
Marlina Lacuesta,
Marilou Costello,
Blesilda Pangolibay
and Heidi Jones

Saumya RamaRao is program associate and Heidi Jones is data analyst, Population Council, New York. Marlina Lacuesta is professor, Social Research Office, Ateneo de Davao University, Davao, Philippines. When this manuscript was written, Marilou Costello was program associate, Population Council, and Blesilda Pangolibay was data analyst, Ateneo de Davao University.

CONTEXT: Little empirical evidence shows whether quality of family planning care influences continued use of contraception, and if so, to what extent.

METHODS: Interviews were conducted in 1997–1998 with 1,728 new family planning users who had sought services at 80 service delivery points in Davao del Norte and Compostela Valley, the Philippines, to assess the quality of care received from family planning services providers. More than 16 months later, 1,460 of the respondents participated in a follow-up survey; the respondents' current contraceptive status was recorded.

RESULTS: The quality of care received at the time a woman adopted a contraceptive method influenced her contraceptive use at follow-up, after adjustment for the effects of background characteristics. Furthermore, use increased steadily with quality: The predicted probabilities of contraceptive use were 55% for low-quality care, 62% for medium-quality care and 67% for high-quality care.

CONCLUSION: A focus on quality improvement would benefit both programs and users.

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Health advocates, human rights activists, researchers, program managers, governments and donors generally agree that quality of reproductive health care is important: Clients deserve to receive high-quality services and to be treated with dignity and respect when obtaining services. From this human rights perspective, there is little need to demonstrate that improvements in quality can affect clients' reproductive behavior and health. However, because many family planning programs in the developing world have been justified and evaluated on the basis of their contribution to fertility decline, an assessment of the effect of quality on fertility-related indicators is important.

On the basis of theoretical insights and empirical evidence, researchers have hypothesized that quality of family planning care strongly influences contraceptive and reproductive behavior. Other determinants include service availability, accessibility, cost and the user's desire to regulate fertility: Persons highly motivated to control their fertility will do so regardless of service availability or quality, and those not desiring to control their fertility will decline to do so even if services are accessible and of good quality. Thus, receiving high-quality care is hypothesized to affect the contraceptive and reproductive behavior of persons who are ambivalent about their fertility intentions, persons who do not use services because of perceptions of poor quality and persons who have discontinued use of a contraceptive method because of poor-quality services or discourteous

treatment by providers. High-quality care can thus be expected to help reduce rates of contraceptive discontinuation and unintended fertility. However, evidence from empirical studies to test this hypothesis has been limited.

We examined longitudinal data to assess the impact of quality of care on continued contraceptive use in two Philippine provinces. The participants, new contraceptive users at family planning clinics, were followed over time. The users' experiences allowed us to evaluate whether, and to what extent, receiving good-quality care, rather than poor-quality care, resulted in a higher rate of contraceptive use at follow-up.

BACKGROUND

Evidence from various settings suggests that receiving good-quality family planning services encourages acceptance or continuation of contraceptive use. Two sets of evidence have emerged on this subject; they differ mostly in their definitions of quality, their research design and the nature of the data being examined. One set of empirical research has assessed links between contraceptive behavior and various measures of access, availability and readiness of family planning services. Readiness refers to factors that promote delivery of good-quality services, such as the availability of infrastructure, equipment, supplies and trained staff. Stated differently, readiness reflects the material conditions at a facility that can aid or hinder the services that a client receives during an interaction with a service provider.* The other set of analyses has used more focused definitions of quality and has examined the effects of individual client-provider interactions on contraceptive use.

*In the literature, readiness has frequently been used interchangeably with quality of care; however, these are two distinct concepts. Readiness refers to factors that promote delivery of good-quality services, such as the availability of infrastructure, equipment, supplies and trained staff. Quality of care refers to the user's experience when receiving the service.

Access, Availability, Readiness and Contraceptive Behavior

Residing in an area with good-quality services tends to encourage contraceptive use. For example, a multivariate analysis using a linked Demographic and Health Survey and situation analysis data set from Peru showed that women living in high-quality service environments were significantly more likely to be practicing contraception than were those living in poor-quality service environments.¹ However, the size of the effect of higher quality was relatively small (an increase of seven percentage points), and the authors speculate that alternative measures of quality might have shown larger effects.

Other studies have reported similar findings. For example, a study in Morocco showed that availability of family planning clinics and the number of contraceptive methods available at the community level were associated with adoption, continuation and switching of contraceptive methods.² In that study, the presence of a government clinic was associated with an increased rate of postpartum adoption of a method with lower failure rates, while availability of a pharmacy was associated with a lower rate of discontinuation because of side effects or health concerns. The number of methods available in the community was positively associated with the likelihood of postpartum adoption of contraception but was not related to switching behavior.

Another analysis of these data measured access by distance, presence of a facility offering maternal and child health services and family planning services, presence of a community-based distribution program and availability of pills; readiness was measured by an index assessing equipment and infrastructure.³ Access to community-based distribution, availability of pills and readiness all significantly affected contraceptive use after adjustment for confounding variables. Other studies have reported that community perceptions of quality of care at available facilities affect the level of contraceptive use in the community.⁴ In all these studies, however, the measures of quality used did not capture the essence of the contact that a person has with the service delivery system; such contact has been hypothesized to play an important role in clients' subsequent contraceptive behavior.⁵ In addition, the previous studies on this topic have measured quality at the community level rather than for individual respondents.

Quality of Care and Contraceptive Behavior

Other research has examined the relationship between individual clients' assessments of various dimensions of service delivery and the clients' contraceptive behavior. One of the earliest of these studies, which highlighted the importance of choice and contraceptive continuation, was a panel study of 1,945 Indonesian women.⁶ After adjustment for the effects of several variables, the analysis found that women who reported being given the method they desired were significantly more likely than other women to be using a contraceptive one year later. The rate of discontinuation was 72% among those who had not been given their method of choice, compared with 9% among those who had.

In addition to method choice, information may also determine contraceptive use. Evidence from West Africa, China and India suggests that rates of discontinuation are lower among women who receive more counseling or information. In a follow-up study of contraceptive discontinuation in Niger and the Gambia, researchers found that approximately 30% of new family planning users discontinued use within the first eight months of acceptance, primarily because of side effects, travel by either partner, spousal disapproval or a desire to become pregnant.⁷ The rate of discontinuation was higher among women who reported that they had not been adequately counseled about side effects. In Niger, for example, 37% of the women who reported having received inadequate counseling discontinued use, compared with 19% of those who reported adequate counseling. A similar situation was observed in the Gambia, where 51% of those who felt that they had not been properly counseled discontinued use, compared with 14% of those who reported having received sufficient counseling. Because the respondents reported retrospectively on the information received at initial adoption and on their contraceptive status at the same interview, the reporting may be biased. These studies did not clarify whether persons who discontinued use were more likely than those who did not to report inadequate counseling. The results would be more persuasive if the information on counseling had been collected before contraceptive status was ascertained.

The Chinese study also reported a higher rate of discontinuation among those given less information.⁸ In that study, users of the hormonal injectable contraceptive (depot medroxyprogesterone acetate) from four family planning clinics were followed for more than one year. Two clinics participated in an intervention in which acceptors were given a substantial amount of information regarding the method's mode of action, hormonal effects and potential side effects, as well as ongoing counseling. At the other two clinics, acceptors were given routine counseling without any information about side effects, unless the clients asked for it. The study compared the continuation rates of the two groups and found that women in the treatment group were four times as likely to continue using the injectable as were the other women. Although it is difficult to determine whether the differences between the two groups were caused entirely by the greater amount of information provided to the treatment group, the findings in that study support the hypothesis that information can be an important determinant of continuation. A smaller study of 136 IUD users in India at a clinic sponsored by a nongovernmental organization provides circumstantial evidence to suggest that providing information results in higher IUD continuation.⁹

The most rigorous analysis on this subject comes from a panel study in Bangladesh in which perceptions of good-quality care were linked to contraceptive use.¹⁰ In that study, persons who believed they had received good-quality care from fieldworkers were more likely to adopt and continue use of a contraceptive method. More than 3,000 repro-

ductive-age women were asked about their perceptions of the care they received from a family planning fieldworker who visited them in their home.* On the basis of a multivariate analysis, the researchers concluded that women who reported receiving a high level of care were 27% more likely to adopt contraception in the next 30 months than were those who received medium or low levels of care. Similar findings were reported on contraceptive continuation among 3,497 users of oral contraceptives, IUDs, injectables, condoms or vaginal foaming tablets who were followed from initial acceptance to method discontinuation, loss to follow-up or the end of the observation period. Women who reported receiving moderate- or high-quality care were more likely, by 22% and 72%, respectively, to continue using a method.

Although these studies indicate that quality of care can influence contraceptive behavior, they have been limited by methodologic issues ranging from endogeneity, a lack of distinction between measures of readiness and quality of care and the lack of variation in quality among community members (when quality is measured at the community level and assigned to all members of the community). These issues are not mutually exclusive and are often intertwined.

To prove that perceived quality affects contraceptive or reproductive behavior would require that the quality of care received be recorded before the decision is made to adopt or continue use of a contraceptive method. Typically, quality of care and contraceptive behavior are measured in surveys with retrospective reporting of events that occurred during a specified period. Measures of quality are available only for respondents who report contact with the health system, whereas information on contraceptive status (use or nonuse) is available for all. The accuracy of retrospective survey data is limited not only by problems with recall, but also by a lack of precision about the timing of each event. Even if a user was known to have received services of good quality preceding contraceptive behavior, it is unclear when in the past the services were received—close to the time of contraceptive adoption or much further in the past—thus giving rise to endogeneity.

Previous research has also been limited by the definitions and measurements of quality used. In some studies, perceptions of quality have been used to emphasize the rapport between provider and client, as was done in the

*Women were asked whether the fieldworker was responsive to their questions, provided adequate information about each topic, respected their need for privacy, seemed to be someone they could depend on and seemed sympathetic to their problems and needs. An index of quality, with scores ranging from 0–15, was created on the basis of the responses to these questions. Respondents were then classified as having received care of low, medium or high overall quality, according to their index score.

†In the Philippine public health care system, rural health units typically are located in the center of a town and are staffed by a physician, a nurse and one or more midwives. Barangay health stations are lower-level facilities in the catchment area of a rural health unit; they are located in less-accessible areas and are staffed by a midwife.

‡Respondents were told that all responses would remain confidential, and they were informed of their right to decline to answer any questions and to terminate the interview at any time. At the conclusion of the first-round interview, each respondent was asked whether she would agree to be reinterviewed; none declined this invitation.

Bangladesh study. However, to completely capture the quality that a user experiences would necessitate a consideration of objective rather than subjective dimensions of the care received. Yet specific and objective dimensions of quality of care, such as being provided information and a choice of contraceptive methods, have rarely been used. Finally, quality as measured by availability or readiness of services in a community reflects the service environment. It is therefore a community-level measure, and it remains invariant across community residents.

The design of our study addresses these methodologic issues. Information on quality of care was collected at study enrollment for every woman who had recently received family planning services at a service delivery point and had begun use of a contraceptive method. Subsequently, at a second round of data collection 16–24 months after the first-round interview, we recorded whether each participant was using a method. In our study, we made efforts to reflect the entire range of quality dimensions that the clients might have experienced. We recorded participants' responses on questions about specific aspects of the quality of their counseling experience.

METHODS

Data Sources

The data for our analysis were collected as part of a collaborative research study conducted by the Population Council, New York, and the Ateneo de Davao University, the Philippines. Data came from two rounds of interviews with a panel of new family planning users. The panel comprised attendees at 80 service delivery points in the provinces of Davao del Norte and Compostela Valley, the Philippines. The service delivery points consisted of 20 rural health units and 60 barangay health stations.† All the existing rural health units in the provinces were included, as were the three barangay health stations nearest to each rural health unit.

The 1,728 new family planning users who had sought services at one of the service delivery points between April and December 1997 were identified from clinic records. (New users are defined as persons who had never before used a modern contraceptive method, were switching to a new method or were using the service delivery point for the first time.) After consenting to participate in the study,‡ they were interviewed for the first time between September 1997 and January 1998 at their residence; more than 80% of the respondents were interviewed within six months of receiving care. Interviewers obtained information on the quality of care the client received at the time of initiating a contraceptive method, the type of method adopted and background characteristics. The clients were subsequently reinterviewed between May and August of 1999. This second-round interview collected information on the contraceptive and reproductive behavior of the respondents since the first round. Obtaining measurements at two points in time allowed us to assess the effect of quality received on subsequent contraceptive use.

These data were collected as part of an intervention study with a quasi-experimental design; providers of family planning services in 40 of the study's 80 service delivery points received training.* For the analysis presented here, we pooled the data from the two groups and did not consider whether the respondent belonged to the experimental or control group.

Statistical Analysis

To check for possible selection bias in our study sample, we began by comparing persons who were reinterviewed with those who participated in round one only. We assessed whether the groups differed significantly in their social, economic and demographic backgrounds by performing chi-square tests and t-tests.

The socioeconomic characteristics considered were the respondent's and her husband's educational levels (measured in years), whether she and her husband were employed and an index of ownership of consumer durables† (to reflect economic well-being). The demographic variables considered were marital status, religion and the respondent's and her husband's ages. The final variables considered were aspects such as the number of living children, the age of the participant's youngest child, her reproductive intention and the contraceptive method adopted; these variables reflect the context in which reproductive and contraceptive decisions and behaviors took place. We used two specifications of reproductive intention—whether a woman wanted to limit childbearing and whether she wanted not to have children in the next two years; the second specification captured both participants who wanted to space births and those who intended to stop childbearing.

Next, we tested whether the quality of care received by the respondents at the time of contraceptive adoption affected their subsequent contraceptive behavior; the dependent variable in our analyses was the use of a contraceptive method at follow-up. We selected this criterion as a gross approximation of contraceptive continuation because all the respondents had entered the panel as new contraceptive users. Our definition of contraceptive continuation includes use of any contraceptive, not necessarily the same method the respondent was using at study enrollment. This definition allows for contraceptive switching and does not consider discontinued use of the first method to constitute a failure. Furthermore, we did not consider whether the woman had conceived in the interval between the two interviews. We made this decision because those who received good care would, by implication, have received information on how to use contraceptives effectively and on the most appropriate method for their fertility desires, and the converse would be true for recipients of poor care; therefore, ignoring conceptions reduces the potential for confounding. We used two alternative definitions for the dependent variable: any use of a method to delay or limit births, and the use of a modern method of contraception.

Quality of care is the independent variable of principal interest. As Table 1 shows, this variable consists of 24 items

TABLE 1. Aspects of care (and possible score range) measured at baseline to assess quality of family planning services received when contraceptive method was adopted, the Philippines, 1997–1998

Aspect of care (score range)
Needs assessed (0–3)
Asked whether she wanted to conceive a child
Asked how long she wanted to wait before next birth
Asked about previous family planning experiences
Information received (0–7)
Shown or told how adopted method works
Told how to use the method adopted
Warned of potential side effects
Instructed on how to handle problems
Informed of warning signs
Told of option to switch methods
Informed of methods that protect against sexually transmitted infections
Method choice (0–4)
Asked which method she preferred
Told about at least one additional method besides the method adopted
Received information without any single method being promoted by provider
Given her method of choice
Interpersonal relations (0–7)
Permitted to ask questions
Given adequate answers to all questions
Treated in a friendly manner
Shown respect for privacy
Received care in a clean environment
Received satisfactory care
Given information, education and communication material
Continuity of care (0–3)
Scheduled for a follow-up visit
Informed of alternative sources of care
Given an appointment card showing the date of follow-up visit

reflecting five different aspects of the care-giving process: the assessment of client needs, the information conveyed, the choices offered, whether the client was treated well by the provider and whether she was linked to follow-up services. These aspects of quality were selected because they represent different dimensions of the process. They are based on theoretic and programmatic insights on what the care-giving process should entail. We weighted these 24 items equally, because we deemed them all to be of equal importance.¹¹ The variable combining the five aspects of care proxies total quality and is scored as low, medium and high to differentiate among levels of overall care. The medium level is defined as quality within one-half of a standard deviation of the mean; values falling outside the range of medium quality were considered the low and high levels of total quality.

We used bivariate methods to explore the association between quality of care and contraceptive use (of modern methods and all methods) at round two; we report results from our cross-tabulations of each index of quality, as well

*Family planning service providers and their supervisors were trained in information exchange, while supervisors were additionally trained in supportive supervision (source: Costello M et al., A client centered approach to family planning: the Davao project, *Studies in Family Planning*, 2001, 32(4):302–314).

†The items composing the index were a refrigerator, television, radio, electric fan, stove, camera, sewing machine, electric iron, sofa and Sleeprite mattress.

TABLE 2. Total sample, respondents lost to follow-up and round-two participants, according to characteristics at round one

Characteristic	All (N=1,728)	Lost to follow-up (N=268)	Reinterviewed (N=1,460)
Socioeconomic			
Mean yrs. of formal education	8.6	8.3	8.6
Mean yrs. of husband's education	8.2	8.1	8.3
Mean no. of durable goods owned	2.0	1.7**	2.0**
Currently employed (%)	15.8	10.8*	16.7*
Husband currently employed (%)	97.5	95.5*	97.9*
Demographic			
Mean age (yrs.)	31.2	30.0**	31.5**
Mean age of husband (yrs.)	34.9	33.4**	35.1**
Married (%)	99.9	100.0	99.9
Christian (%)	82.2	80.5	82.5
Reproductive			
Mean age of youngest child (yrs.)	1.7	1.3**	1.7**
Mean no. of living children	3.0	2.7**	3.0**
Has ever been pregnant (%)	100.0	100.0	100.0
Intends to limit childbearing (%)	65.3	58.2**	66.6**
Intends to space births (%)	34.7	41.8**	33.4**
Contraceptive method accepted (%)			
Pill	39.1	44.4	38.2
Injectable	35.5	27.6**	36.9**
IUD	14.0	17.5	13.4
Condom	10.2	9.0	10.4
Sterilization	0.0	0.0	0.0
Other	1.2	1.5	1.2

*Difference between persons lost to follow-up and round-two participants significant at $p \leq .05$. **Difference significant at $p \leq .01$.

as total quality and contraceptive use at round two. Next, we used multivariate methods to test whether the quality of care received at initiation of contraceptive use was associated with use at follow-up, after adjustment for the effects of various background factors. In the multivariate analyses, we used only one specification of the dependent variable, the use of modern methods. The analysis also controls for design effects; because more than one respondent could have sought services at the same service delivery point, it is necessary to account for any clinic-level factors operating across a cluster of respondents. Logistic regression models were estimated because the dependent variable is dichotomous. All the independent variables are the same individual-level variables used in the analysis for sample selection.

RESULTS

Comparison of Round-One and Round-Two Respondents

Of the 1,728 respondents in the first-round interviews, 1,460 (85%) participated in the follow-up survey. The two most common reasons for loss to follow-up were migration (77%) and interviewer's inability to locate the respondent's house (10%). Only two respondents declined to be interviewed. Respondents who were reinterviewed differed significantly from those who were not on some socioeconomic characteristics (Table 2). In general, older and economically better-off persons were significantly more likely to be reinterviewed, indicating that younger respondents may have migrated to seek employment. Compared with respondents

who were not reinterviewed, those who participated in round two were more likely to be employed and to have employed husbands, were older, had husbands who were older, owned more consumer durables, had more children, had an older youngest child, and were more likely to have stopped childbearing and to use the injectable.

Despite differences on some of the variables, the basic composition of the panel for round two appeared to be similar to that for round one. For example, the educational background of respondents remained the same (8.6 years in both rounds), as did that of their husbands (8.2 years in round one and 8.3 in round two). No significant changes were seen in employment, ownership of consumer durables or any of the variables measuring demographic characteristics or reproductive behavior. Hence, we would not expect any systematic biasing of results due to differences between the round-one and round-two groups.

Table 3 shows information on the respondents' status at round two and any changes in their situation since round one. At round two, 75% of the women reported current use of a contraceptive method, including 59% who were using a modern method. The proportion of women reporting a desire to limit childbearing increased between round one (67%) and round two (75%). This was expected, because some of the women would have been likely to achieve their desired family size in the time between the two interviews. Three in 10 respondents reported that their household economic condition had improved in the previous year.

TABLE 3. Percentage distribution of round-two respondents, by selected characteristics and change since round one

Characteristic	% (N=1,460)
STATUS AT ROUND TWO	
Method of contraception	
Pill	32.7
Injectable	11.9
IUD	11.2
Condom	2.6
Sterilization	1.0
Other	15.8
None	24.8
Reproductive intention	
Limit no. of children	75.1
Space childbirths	24.9
Pregnancy status	
Pregnant	8.1
Not pregnant	91.9
CHANGE SINCE ROUND ONE	
Household economic situation	
Improved	29.3
Did not improve	70.7
Initiation of employment	
Started working	19.3
Did not start working	80.7
Termination of employment	
Stopped working	6.3
Did not stop working	93.7
Total	100.0

TABLE 4. Percentage of respondents practicing contraception at follow-up, by baseline reproductive intentions and quality of care received at initial family planning visit

Baseline intentions and quality	Method use at follow-up	
	Modern (N=867)	Any (N=1,098)
Fertility intentions		
Wants to stop childbearing	60.0	76.9*
Wants no births for ≥2 years	60.1*	75.8
Needs assessed		
All	60.6	75.8
None	52.4	69.0
Information received		
All	65.9*	78.9*
None	51.0	84.3
Method choice		
All	61.4	77.0*
None	0.0	0.0
Interpersonal relations		
Good	62.5*	78.3*
Poor	0.0	0.0
Continuity of care		
Good	63.1	81.5*
Poor	56.4	75.2
Total quality		
Low (score, 0–16)	52.6**	72.4
Medium (score, 17–20)	59.3	73.9
High (score, 21–24)	64.5**	78.6*

*Difference between the indicator and its complement significant at $p \leq .05$.
**Difference significant at $p \leq .01$.

Effect of Quality on Contraceptive Use

On the basis of the scores for total quality (composite scores for the five indices of quality shown in Table 1), 36% of the respondents had received high-quality care, 27% poor-quality care and the rest moderate-quality care. On average, respondents reported having received 18.5 of the 24 items listed. Responses regarding the five aspects of quality differed considerably. For example, whereas three-fifths of the respondents reported that all their needs had been assessed, barely one-tenth reported that they had been given all the necessary information regarding follow-up.

On a scale of 0–3, the mean scores among all respondents were 2.4 for assessment of needs and 1.5 for continuity of care. Of the remaining categories measuring quality of care, the mean scores were 5.1 (of a possible 7.0) for information received, 3.5 (of 4.0) for method choice and 6.0 (of 7.0) for interpersonal relations.

Results from a cross-tabulation of quality and contraceptive use at follow-up indicate that better care was associated with higher levels of use of modern methods and any method (Table 4). On all five indices, overall contraceptive use at follow-up was more prevalent among respondents who had received high-quality care than among women who had received low-quality care. Furthermore, use of a modern method was greater at the highest level of care than at the lowest level; for example, among women whose needs had been fully assessed, 61% were using a modern contraceptive method, compared with 52% of those who had

had no needs assessed. On two of the five indices, contraceptive use differed significantly between those who had received high-quality care and those who had not; for example, 66% of those who had received all relevant information were using a modern method, compared with 51% of those who had received no information. This relationship remained after all five indices of quality were combined. Continuation of a modern contraceptive method steadily increased as the level of quality moved from low (53%) to medium (59%) to high (65%). The relationship of quality of care to use of any method was similar. Thus, there is sufficient empirical evidence to support the hypothesis that quality of care is correlated positively with contraceptive use. Furthermore, Table 4 shows that a desire not to have children for at least two years was associated with higher use of a modern contraceptive at follow-up.

We further tested the relationship between modern contraceptive use and quality in a multivariate analysis. Table 5 shows results from four logistic regression models. These models were designed to examine whether the magnitude or significance of the critical variable—quality of care—would change after the addition of control variables to the model. We found that quality of care significantly affected contraceptive use at follow-up in the unadjusted analysis; the odds of use among women who had received medium- or high-quality care were 31% and 64% higher than the odds among those who had received low-quality care. This relationship remained significant after the addition of fertility intentions and a range of demographic and socioeconomic variables. The magnitude, direction and significance of the effect of quality were maintained across all the models. This is a noteworthy result, because previous analyses have indicated

TABLE 5. Odds ratios from logistic regression models predicting the effect of quality of care on women's use of a modern contraceptive method at follow-up, after accounting for the effects of fertility intention and background variables

Variable	Quality only	Fertility intention only	Quality and fertility intention	Plus background factors
Total quality of care received				
Low (ref)	1.00	na	1.00	1.00
Medium	1.31*	na	1.32*	1.33*
High	1.64**	na	1.64**	1.62**
Reproductive intention				
Wants to limit future childbirths or space by ≥2 yrs.	na	1.65*	1.64*	1.78*
Demographic characteristics				
No. of children	na	na	na	1.05
Age of youngest child	na	na	na	0.99
Age	na	na	na	0.98
Husband's age	na	na	na	0.98
Socioeconomic characteristics				
Education	na	na	na	0.98
Husband's education	na	na	na	1.02
Currently employed	na	na	na	1.10
Husband currently employed	na	na	na	1.28
No. of consumer durables owned	na	na	na	1.06
<i>-2 log likelihood</i>	1,959.13	1,967.01	1,954.04	1,904.93
<i>Wald χ^2</i>	12.42**	4.75*	18.12**	51.35**

*Difference significant at $p \leq .05$. **Difference significant at $p \leq .01$. Notes: ref=reference category, na=not applicable.

that the effect of quality of care tends to diminish with the addition of socioeconomic controls, such as those used in our study.¹²

To further illustrate these results, we calculated the predicted probabilities of use at follow-up in each category of care for a woman with average characteristics (not shown). We used the following characteristics to depict an average respondent in this sample: a working woman aged 31.5 years who had 8.6 years of education; owned two items; had three children, the youngest of whom was 1.7 years; and wanted to space the births of her future children. She had an employed husband, aged 35.1 years, with 8.3 years of education. Such a woman had a 55% probability of practicing contraception at follow-up if she had received low-quality care, a 62% probability if she had received medium-quality care and a 67% probability if she had received high-quality care. In short, this analysis provides evidence to support the idea that persons who receive better-quality care are more likely to continue contraceptive use.

DISCUSSION

Our finding that receiving good-quality care at initiation of contraceptive use is positively associated with continuation of use is important for several reasons. First, this is the first rigorous analysis that establishes a link between quality of care and contraceptive use at follow-up. Contraceptive decision-making is a complex process in which persons consider various factors, including the context of their lives, both familial and personal, as well as the psychological and physical ease with which they can obtain and use contraceptives. Given the many influences on contraceptive use, it is noteworthy that quality of care emerges as a significant determinant in a multivariate model.

Second, and perhaps more important, our findings validate the efforts of professionals and advocates engaged in improving and sustaining quality as an end in itself. For those who may not be persuaded by humanitarian concerns alone, these analyses provide a reason to promote high-quality care.

Third, these results provide empirical proof that a focus on the interpersonal contact between providers and clients can address some gaps in family planning programs. It has been repeatedly documented that fearing and experiencing side effects are principal reasons for discontinuation. For example, a recent analysis of Demographic and Health Survey data from 15 countries indicated that 7–27% of women discontinued contraceptive use within the first year for broadly classified quality-related reasons, predominantly related to side effects and other health concerns.^{13*} These legitimate fears of users and potential users can be allayed if providers are trained in how to handle such situations; for example, providers can be encouraged to adequately and appropriately inform clients and can be given the appropriate support systems for managing side effects.

*Other quality-related reasons were contraceptive failure, desire for a more effective method, lack of access, cost and the inconvenience of using the method.

Providers can also be trained to treat clients respectfully and courteously and to be genuine caregivers instead of motivators. Such approaches would go a long way toward boosting clients' confidence in family planning programs and reducing contraceptive discontinuation for reasons that can be affected by these programs.

Finally, as Jain has suggested, it pays to focus on providing for the needs of continuing clients instead of concentrating exclusively on recruiting new ones.¹⁴ Such a focus would benefit not only current users but would ultimately attract new users as the experiences of earlier adopters became known. But this strategy will be effective only if accompanied by clear and specific guidelines for serving continuing clients. Furthermore, appropriate evaluation criteria are needed for service providers and the overall programs. Concomitant efforts can also empower users and potential users to demand and negotiate sustained high-quality care.

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RESUMEN

Contexto: Hay pocas pruebas empíricas que indiquen que la calidad de la planificación familiar influye en el uso continuo de la anticoncepción, y si así fuere, en qué medida lo hace.

Métodos: Se realizaron entrevistas en 1997–1998 a 1.728 nuevas usuarias de los servicios de planificación familiar en 80 puntos de distribución ubicados en Davao del Norte y en el Valle de Compostela, en las Filipinas, para evaluar la calidad de la atención recibida. Más de 16 meses después, 1.460 entrevistadas participaron en una encuesta de seguimiento y se registró el uso actual de anticonceptivos realizado por las mismas.

Resultados: La calidad de la atención recibida en el momento en que la mujer adoptó un método anticonceptivo influyó en que ésta continuara utilizándolo luego de ajustarse los efectos de las características antecedentes. Además, el uso aumentó sostenidamente con la calidad: las probabilidades previstas de uso de anticonceptivos fueron del 55% entre las mujeres que recibieron atención de baja calidad, del 62% entre aquellas con atención de calidad media y del 67% entre las con atención de primera calidad.

Conclusión: Una mayor atención en el mejoramiento de la calidad beneficiaría tanto a los programas como a las usuarias.

RÉSUMÉ

Contexte: Peu de données empiriques indiquent si la qualité des prestations de planning familial influence l'usage continu de la contraception et, si oui, dans quelle mesure.

Méthodes: Des entrevues ont été menées en 1997–1998 avec 1.728 nouvelles utilisatrices du planning familial qui s'étaient

adressées à 80 points de prestations à Davao del Norte et Compostela Valley, aux Philippines, afin d'évaluer la qualité des prestations reçues dans les services de planning familial. Plus de 16 mois plus tard, 1.460 des répondantes originales ont participé à une enquête de suivi avec enregistrement de leur état de pratique contraceptive.

Résultats: La qualité des prestations reçues au moment où une femme avait adopté une méthode contraceptive s'est avérée influencer la poursuite de la contraception, après correction de l'effet des caractéristiques socioculturelles. Un accroissement régulier de l'usage a également été observé en fonction de la qualité: les probabilités prédites d'usage de la contraception étaient de 55% pour les prestations de faible qualité, 62% pour celles de qualité moyenne, et 67% pour celles de haute qualité.

Conclusion: Tant les programmes que les utilisatrices bénéficieraient d'une concentration sur la qualité.

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Author contact: pubinfo@popcouncil.org