The Quality of Family Planning Services in the United States: Findings from a Literature Review

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CONTEXT: *Family planning services are frequently used and important services for American women, yet little is known about their quality. Service quality has important implications for women's reproductive health. If women do not receive adequate information and tools, and learn appropriate skills, from their providers, they may be hampered in their efforts to control their fertility.*

METHODS: *A variety of strategies, including database, journal and Internet searches, were used to identify published and unpublished U.S. studies on family planning service quality that came out between 1985 and 2005. Studies were categorized by their focus, and key points of their methodologies and findings were assessed.*

RESULTS: *Twenty-nine studies were identified, most of which were based on client surveys. Most conceptualized quality as a multidimensional construct, but a uniform definition of quality is lacking, and the domains studied have not been consistent. The available studies focus on four areas: assessments of quality, its correlates, its consequences for client behavior and attitudes, and clients' values and preferences regarding services. Relations between clients and service facility staff have typically been rated favorably, but communication, patient-centeredness and efficiency have been rated more poorly. Service quality varies by characteristics of the facility, provider, client and visit. Research on the consequences of service quality for clients' contraceptive behavior or risk of unintended pregnancy has been very limited and yielded mixed results.*

CONCLUSIONS: *Studies that assess service quality need stronger designs and greater consistency in measures used so that results are comparable.*

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Family planning services are frequently used and important services for American women of reproductive age.[1] According to the 2002 National Survey of Family Growth, 42% of women aged 15–44 have sought a family planning service from a medical provider in the last 12 months.[2] These services are especially important for young women. Sixty-three percent of women 20–24 years old and 55% of women aged 25–29 have sought a birth control service in the last year.[2] These services are crucial in enabling women to meet their fertility goals. Most American women desire only two children; to reach this low level of fertility, women must spend approximately three decades of their reproductive lives trying to avoid an unintended pregnancy.[3]

Despite the importance and frequency of use of family planning services, and a vast literature on accessibility of services, relatively little is known about their quality.[4] Further research in this area is an important priority, given interest in and attention to health care quality generally in the United States[5,6] and the evidence of problems with quality across diverse health services.[6,7] It is important for the family planning field to learn whether quality problems exist and, if so, to develop strategies to address them.

Learning more about family planning service quality is important for ethical reasons, as receiving high-quality care is a basic right of patients.[8] In addition, one of the main motivators behind this area of research is the notion that family planning service quality influences contraceptive and reproductive health outcomes. Studies in diverse international settings, where family planning service quality has long been an area of intense focus for research and intervention activity,[9,10] have linked service quality to contraceptive adoption,[11] prevalence[12] and continuation.[11,13–16]

In the United States, unintended pregnancies and contraceptive failure are important problems. Each year, almost half of all pregnancies in the United States are unintended; 48% of unintended pregnancies occur among women who were using a contraceptive method at the time they conceived.[17] Further, 9% of women using reversible contraceptive methods experience a contraceptive failure within the first 12 months of use, and 17% do so in the first 24 months.[18] These problems are undoubtedly caused by numerous factors, but the quality of family planning services may play a role. If services are not of high quality, clients may not receive the information and learn the skills they need to adopt and sustain successful contraceptive behavior.

Policies and regulations also influence service quality. Although no policies govern family planning services across

all types of providers, guidelines exist for specific providers. Providers who receive funds through Title X (the federal program dedicated to family planning service provision for low-income individuals) must adhere to a set of regulations governing services. Among these are that a wide range of safe and effective contraceptive options must be offered to clients, that services must be completely voluntary and that clients must be treated with dignity.[19] Planned Parenthood clinics similarly have a set of quality standards governing services.[20] Finally, private providers may learn about quality standards through professional organizations. The American College of Obstetricians and Gynecologists and the Association of Reproductive Health Professionals issue guidelines and recommendations regarding clinical practice and service delivery.[21,22]

In this review of the literature, we aimed to explore the state of knowledge about the quality of family planning services in the United States. The review was guided by five questions. First, what have been the major areas of research on family planning service quality? Second, what populations and locations have been studied? Third, what methodologies have been used? Fourth, how has family planning service quality typically been defined and measured? Finally, what have been the major findings? The answers to these questions could help inform future efforts to monitor, study and improve the quality of family planning services in the United States.

METHODS

Our review included U.S. studies of family planning service quality that were published or, in the case of unpublished studies, released between 1985 and 2005. To identify studies, we carried out searches on PubMed, Popline and JSTOR. We also searched the databases of the *American Journal of Public Health, Perspectives on Sexual and Reproductive Health, Contraception* and *Social Science & Medicine*. Finally, we searched bibliographies of identified studies, conducted Internet searches and contacted colleagues working in the family planning field to identify studies. We used a coding sheet when reviewing each article to collect key information about the study.

Studies of the quality of U.S. family planning services, by area of focus, 1985–2005

Descriptive
Amey, 2003[46]
Bixby Center for Reproductive Health Research and Policy, 2005[35]
Chetkovich et al., 1999[28]
Felix et al., 2004[44]
Finer et al., 2002[42]
Forrest and Frost, 1996[45]
Gold et al., 1998[40]
Hamby and Kusi-Appouh, 2003[43]
Harvey et al., 1989[23]
Milligan, 1989[29]
Radecki and Bernstein, 1989[41]
Sonenstein et al., 1997[31]
Thorburn and Bogart, 2005[33]
Weisman et al., 2002[48]
Winter and Goldy, 1987[47]

Correlates of quality
Armstrong et al., 1985[26]
Bixby Center for Reproductive Health Research and Policy, 2005[35]
Finer et al., 2002[42]
Forrest and Frost, 1996[45]
Gold et al., 1998[40]
Harvey et al., 1989[23]
Milligan, 1989[29]
Radecki and Bernstein, 1989[41]
Sonenstein et al., 1997[31]
Winter and Goldy, 1987[47]

Quality and client outcomes
Armstrong et al., 1985[26]
Brindis et al., 1994[27]
Danielson et al., 1990[36]
Forrest and Frost, 1996[45]
Herceg-Baron et al., 1985[25]
Herceg-Baron et al., 1986[24]
Kalmuss et al., 1996[50]
Namerow et al., 1989[51]
Nathanson and Becker, 1985[30]
Rosenberg et al., 1998[49]
Weisman et al., 2002[48]
Winter and Breckenmaker, 1991[34]

Clients' preferences
Amey, 2003[46]
Chetkovich et al., 1999[28]
Harvey et al., 1989[23]
Severy and McKillop, 1990[54]
Silverman et al., 1987[52]
Sonenstein et al., 1995[53]
Sonenstein et al., 1997[31]
Sugerman et al., 2000[32]

Note: Superscript numbers refer to the reference list, page 213.

RESULTS

Overview of the Research

We identified 29 studies on family planning service quality. These studies can be classified according to their primary area, or areas, of focus (see box). Fifteen studies were descriptive and documented levels of service quality, 10 investigated the correlates of quality, 12 examined the effect of quality on clients' attitudes and behavior, and eight explored clients' preferences and values regarding family planning service delivery. Ten studies appeared in the literature between 1985 and 1989, four between 1990 and 1994, seven between 1995 and 1999, and eight between 2000 and 2005.

The methodology most commonly used to study family planning service quality has been surveys of women in the general population or of family planning clients. In these surveys, women are typically asked about the quality of the services they received at their most recent family planning visit. (By contrast, in other areas of health care, service quality is generally assessed from the perspective of providers or technical experts.)

Other approaches that have been used are focus group discussions, in-depth interviews, medical record reviews, expert observations of client-provider interaction, surveys of providers, surveys of managers or directors of family planning organizations, and quasi-experimental and experimental studies.

The population that has most often been included in studies of family planning service quality has been

low-income adult women. A fairly large number of studies have included adolescent women;[23–35] only two have included males.[35,36]

Studies have typically conceptualized family planning service quality as a multidimensional construct. Yet, most have not been based on conceptual frameworks, and few have defined service quality. As a result, the domains of quality measured have been inconsistent across studies. Certain domains, such as client-staff interactions and the accessibility of services, have been assessed relatively frequently, while others, such as technical quality, have been explored infrequently.

For this review, we developed a conceptual framework by which to classify the domains of quality studied in previous research. Our conceptual framework is based on two previous frameworks of quality of care, those of Bruce (which was specific to family planning)[37] and of Sofaer and Firminger[38] (which was concerned with health services more generally). It includes eight domains: accessibility, communication and information, client-staff interactions, efficiency and effective organization of care, technical competence, structure and facilities, contraceptive method choice and patient-centeredness (Table 1). This framework accommodates nearly all of the aspects of quality studied in previous research, whereas previous frameworks did not.

Descriptive Research

•*Accessibility.* Services are accessible when no geographic, economic, administrative, cognitive or psychosocial barriers prevent clients from obtaining them.[39] Eleven studies have measured accessibility.[28,29,31,35,40–46] While most found high levels of economic and geographic accessibility, some identified barriers in other areas, such as administrative accessibility. In a study of women members of managed care plans in five states, 13% of those in commercial plans and 7% of those in Medicaid plans reported waiting four weeks or longer for a family planning appointment.[40] Additionally, inconvenient hours of operation[31] and difficulties reaching providers by phone[41] have been noted as problems, especially for clients seen at subsidized clinics and hospitals. Finally, language interpretation services are often not available, posing an accessibility problem for non–English-speaking clients. In a study including the directors of 637 publicly funded family planning agencies nationwide, fewer than one-quarter reported the availability of tailored services for non–English-speaking patients.[42]

•*Communication and information.* Twelve studies have assessed communication and information provision.[23,28,29,31,35,40,41,43–45,47,48] Studies asking clients about specific information provided during the visit generally have found high proportions reporting discussions about specific topics, such as the effectiveness of different contraceptives and how to use particular methods.[23,47,48] However, studies that have asked clients to rate the quality of the information provision overall have tended to find less positive results. Fourteen percent of women surveyed in Washington, DC, felt that their family planning provider had not given them sufficient explanations at their most recent visit; among women seen at hospitals, the proportion reporting incomplete explanations was 25%.[31] In a qualitative study in California, reasons that low-income women reported for feeling dissatisfied with the communication during their family planning visits included that they were unable to discuss their concerns and questions adequately, their provider did not tailor advice to their specific circumstances, and their provider dismissed their concerns, especially concerns about the side effects of contraceptives, as unimportant.[28]

•*Client-staff interactions.* Client-staff interactions have been assessed in 12 studies.[23,28,29,31,35,40,41,43–47] Across studies, women have generally reported respectful and friendly treatment by providers.[41,43–45,47] However, few studies have distinguished between clinicians' and other staff members' interactions with clients. Low-income women participating in a qualitative study in Baltimore rarely reported disrespectful treatment on the part of clinicians, but more commonly mentioned disrespectful treatment by other staff members.[46] Another aspect of client-staff interactions that has been studied is privacy; some studies have identified problems with privacy, especially while clients are waiting to be seen for their appointment.[35,46]

•*Efficiency and effective organization of care.* Ten studies have addressed the efficiency and effective organization of care.[29,31,35,40–44,46,47] The most widely studied aspect of this domain is the time clients spend in the waiting room. Waiting time to be seen is one of the indicators of quality consistently rated most poorly.[31,41] Indicators of the organization of care such as the follow-up mechanisms in place to track clients over time and whether clients can be seen by the same provider at all visits have also been rated somewhat poorly.[31,41,42,43] In the national study of directors of publicly funded family planning agencies, only 53% reported that their agencies had any mechanisms in place to contact clients who missed appointments.[42] In the study of women in Washington, DC, 18% reported being unable to see the same provider for each visit; the proportion was particularly high (37%) among women who received their care at hospitals.[31]

•*Technical competence.* Technical competence refers to the degree to which the care provided is safe, is effective and complies with accepted clinical standards. This domain of quality has been examined in only two studies.[41,43] The limited data available suggest a high level of technical competence.

•*Structure and facilities.* The quality of the structure and facilities has been assessed in five studies.[29,35,41,44,45] Aspects of the physical structure studied have included crowdedness, cleanliness, noise level and overall organization. Physical features of facilities (particularly, the

crowdedness and comfortableness of waiting rooms) have tended to be rated somewhat poorly.[35,41,45] General disorganization was found to be somewhat problematic in a study with a nationally representative sample of low-income women.[45]

•*Method choice.* The contraceptive method choice available to clients has been assessed in 10 studies.[23,28,31,33,35,40,42–44,46] The range of contraceptive options offered varies across sites;[40,42] oral contraceptives are the only method offered by virtually all family planning providers.[42] In studies asking clients directly about the method choices available to them, few clients reported being unable to obtain their method of choice from their provider.[31,35,44] Nevertheless, one-third of a nationally representative sample of black women reported that a family planning provider had "strongly encouraged" them to adopt a specific birth control method when they had wanted to use another one.[33] Similarly, in two qualitative studies, some women reported feeling pressured to adopt a specific birth control method, most commonly a hormonal one.[28,46]

•*Patient-centeredness.* The patient-centeredness of services is the degree to which services are tailored to the needs and circumstances of individual clients. This domain has been assessed in only four studies,[23,41,45,48] and has generally received moderate ratings. For example, only 69% of a nationally representative sample of low-income women completely agreed that the staff at their last family planning or gynecologic visit made an effort to find out about their particular needs.[45]

Correlates of Service Quality

Ten studies have explored correlates of family planning service quality.[23,26,29,31,35,40–42,45,47] These can be grouped into four categories: studies of facility factors, provider factors, client factors and consultation factors. Of these, facility factors have been studied the most frequently. The correlates of service quality have most commonly been studied in cross-sectional surveys.

In general, quality ratings have been lower for public than for private facilities.[31,41,45] In addition, hospitals and health departments tend to be rated the most poorly of all sites,[29,31,45] while private doctors tend to be rated the most favorably.[31,41] Two provider characteristics have been correlated with service quality: Female providers have received higher quality ratings than males,[23,47] and nonphysicians have been rated more highly than medical doctors.[23,26] Unmarried clients, those with less than a college education, members of minority groups, Spanish speakers and males have rated services more poorly than others;[35,45,47] being younger than 20 was associated with worse quality ratings in one study,[47] but not in two others.[35,45] Finally, of the consultation factors studied, a client's being unable to see a clinician of her preferred sex has been negatively associated with quality ratings, but the amount she has paid for services is not associated with quality ratings.[45]

TABLE 1. Domains and measures assessed in studies of the quality of U.S. family planning services

Domain	Measures assessed
Accessibility	Whether care is geographically accessible, affordable, convenient, language-appropriate and culturally competent
Communication and information	Whether information provided is understandable and sufficient
Client-staff interactions	Whether providers and staff demonstrate respect, courtesy, friendliness and empathy, and respect clients' privacy
Efficiency and effective organization of care	Whether care is efficient and effectively organized in terms of waiting time, follow-up, billing and referral, and whether clients can see the same provider at each visit
Technical competence	Whether care is technically competent, effective and safe
Structure and facilities	Comfortableness, safety, cleanliness and privacy of facilities
Method choice	Whether clients are offered a range of contraceptive options and can choose the option that suits them
Patient-centeredness	Whether care is tailored to the needs and preferences of individual clients

Quality and Outcomes

Twelve studies have investigated the relationship between family planning service quality and client attitudes and behavior (Tables 2 and 3, pages 210 and 211).[24–27,30,34,36,45,48–51] Most commonly, these studies have explored the link between quality and clients' contraceptive use after the visit. A few have investigated the link between quality and other client outcomes, such as clients' satisfaction with their contraceptive method, likelihood of returning to services and experience of an unintended pregnancy.[24–26,34,49,51]

These investigators have used a variety of designs: cross-sectional[45,48] and prospective surveys,[25–27,30,49,50] and quasi-experimental[34,51] and experimental studies.[24,36] Of the four experimental and quasi-experimental studies, all tested the effect of counseling interventions; one also tested the effect of increased provider support to women through follow-up phone calls.

Observational and prospective studies have tended to find positive relationships between service quality and client contraceptive behavior.[30,48,50] In a cross-sectional study of 898 women who were members of health plans in Michigan, those who had received personalized contraceptive counseling through their plan had nearly five times as high odds of using a contraceptive method as those who had received no counseling. Women who had received nonpersonalized informational counseling also had increased odds of using contraceptives, but the differential was not as large.[48] In a study that followed 786 low-income women who were newly adopting the contraceptive implant, participants who said that their provider or counselor had pressured them to adopt the method at their initial visit had higher odds than women who reported no pressure of discontinuing its use early.[50]

The limited evidence from the four quasi-experimental and experimental studies is more mixed. Two studies found that the interventions tested had no effects on contraceptive behavior,[24,51] while two noted positive

TABLE 2. Characteristics of observational studies assessing associations between service quality and client behavior and attitudes

Study	Sample	Design and setting	Quality predictors	Outcomes	Significance
Armstrong et al., 1985[26]	628 female family planning clients who had not returned to services for ≥2 years	Retrospective survey on clinic discontinuation; Title X–funded clinics in PA	Waiting time for appointment; time spent with staff; waiting time at clinic	Unintended pregnancy; abortion	ns
Brindis et al., 1994[27]	162 female adolescents	Prospective chart review; school-based clinics in CA	Number of visits; follow-up visit scheduled in ≤1 month	Contraceptive use	*
			Availability of contraceptives on-site; type of health educator; other medical/counseling services available; contraceptives dispensed on-site		ns
Forrest and Frost, 1996[45]	1,852 low-income women	Cross-sectional survey; nationally representative sample	General organization; cleanliness; patient-centeredness; interpersonal treatment	Satisfaction with services	*
			Crowdedness; comfortableness of facility		ns
Herceg-Baron et al.,1985[25]	16,921 adult and adolescent women	Retrospective administrative record review; 61 Title X–funded family planning clinics in PA; clinic-level analysis	Time spent in contact with staff; clinic hours; number of staff seen; whether clinic sends reminder notices; whether clinic follows up on missed visits; percentage of clients receiving specialized counseling; percentage receiving a contraceptive; availability of teenage sessions	Clinic continuation rate	*,†
Kalmuss et al., 1996[50]	786 women adopting implant	Prospective survey; family planning clinics in Dallas, New York and Pittsburgh	Pressure to adopt implant	Early implant discontinuation	*
			Adequacy of counseling		ns
Nathanson and Becker, 1985[30]	2,900 female adolescents; 338 nurses	Prospective survey; health department clinics in MD	Amount of control of provider vs. client	Contraceptive use	*
			Scope of client-provider interaction; level of trust		ns
Rosenberg et al., 1998[49]	992 pill users	Prospective survey; private physicians' offices, Planned Parenthood clinics, HMO	Client-provider interaction	Satisfaction with pill	*
Weisman et al., 2002[48]	898 women	Cross-sectional survey; HMO and point-of-service health plan in MI	Type of contraceptive counseling received (personalized/ informational/none)	Current contraceptive use; intended use; satisfaction with services	*
				Contraceptive self-efficacy	ns

*Result was statistically significant. †In this study, significance was defined as p<.15. *Notes:* ns=nonsignificant. Superscript numbers refer to the reference list, page 213.

effects.[34,36] However, in one study, the observed effects disappeared by 12 months;[34] in the other, adolescent males who took part in a special reproductive health counseling session were more likely than controls to be using an effective contraceptive method one year later, but the effect was limited to those who had not been sexually active at baseline.[36]

Three quasi-experimental and experimental studies have analyzed the effect of quality improvement interventions on the risk of pregnancy.[24,34,51] None found a significant effect, but in one, adolescents exposed to the intervention had a marginally lower pregnancy risk than controls.[34] In another, a short-term effect was seen in a high-risk subgroup of women (those who had previously been pregnant), but this effect disappeared by 12 months.[51]

The effect of service quality on clients' likelihood of returning for care has also been examined. Two observational studies found associations between quality and clients' likelihood of returning to services.[25,26] In a study of 628 Pennsylvania women who had not returned to their federally funded family planning clinics for two or more years, 45% reported not returning because they perceived problems with the care received, the clinic's functioning or the accessibility of services. Specifically, women mentioned long waiting times, lack of privacy, poor treatment by staff, little continuity of providers, and

TABLE 3. Characteristics of studies of quality improvement interventions

Study	Sample	Design and setting	Intervention	Main outcomes	Significance
Danielson et al.,1990[36]	1,195 adolescent males	Experimental; HMO in OR and WA	Special reproductive health counseling	Sexual "impatience";† pill was main contraceptive in last year;‡ pill was used at last intercourse;‡ reproductive health knowledge; attitudes toward coerced sex;‡ testicular self-exam	*
				Sexual activity	ns
Herceg-Baron et al., 1986[24]	358 adolescent females§	Experimental; Philadelphia-area family planning clinics	Two interventions: increased support for clients by staff; increased family involvement	Mean number of clinic visits; consistency of contraceptive use; pregnancy	ns
Namerow et al., 1989[51]	914 low-income adult women	Quasi-experimental; New York City family planning clinics	Counseling to plan for barriers to contraceptive use	Correct use of method††	*
				Clinic continuation rate; contraceptive use at last intercourse; frequency of use in last month; frequency of use in last 6 months; unintended pregnancy‡‡	ns
Winter and Breckenmaker, 1991[34]	1,261 adolescent females	Quasi-experimental; nonmetropolitan PA family planning clinics	Services designed for adolescents	Contraceptive use (6 months); ability to cope with method (6 months); continued method use despite problems with method (6 and 12 months); reproductive health knowledge	*
				Contraceptive use (12 months); ability to cope with method problems (12 months); pregnancy;§§ clinic continuation; satisfaction with services	ns

*Result was statistically significant. †Refers to negative or uncomfortable feelings related to being sexually inexperienced. ‡Effects were limited to males who were not sexually active at baseline. §The numbers of clients who participated in the interventions were small: 63 for the clinic staff support intervention and 37 for the family involvement intervention. ††Difference was significant for pill users, but not for users of the IUD, diaphragm or condom. ‡‡A significant positive effect was seen at six-month follow-up for women who had previously been pregnant, but this difference disappeared by 12-month follow-up. §§Among 16–17-year-olds, the intervention group had a significantly lower rate of pregnancy than the control group. *Notes:* ns=nonsignificant. Superscript numbers refer to the reference list, page 213.

inconvenient hours and location.[26] By contrast, three quasi-experimental studies found no relationships between the interventions tested and clients' rates of return to their provider.[24,34,51]

Clients' satisfaction with contraception has also been linked to service quality. In a prospective study of pill users, clients who were dissatisfied with the client-provider interaction at their initial visit had significantly elevated odds of being dissatisfied with the pill two months later.[49]

Clients' Preferences

Eight studies have explored client preferences and values regarding family planning service quality.[23,28,31,32,46,52–54] Studies in this area have found that to clients, the most important aspects of services are receiving personalized attention, having staff who spend enough time explaining issues, being able to see the same provider at different visits, receiving care that is technically appropriate and receiving affordable care. Convenience factors—waiting times, whether weekend and holiday hours are available, whether clinics accept walk-in clients and whether child-care services are provided—are generally considered less important.[23,28,31,52] A few studies have investigated whether clients' values and preferences for family planning service quality differ by subgroup. One study found no subgroup differences,[52] but another found that certain features of services (whether a clinic accepts Medicaid and whether a woman is informed about what to expect during an exam) are more important to women with children and black women than to childless and white women.[54] In another study, adolescents were more concerned than adults about confidentiality.[32]

DISCUSSION

Over the past two decades, only 29 studies have reported on family planning service quality; the majority have been descriptive. One of the important strengths of the available research is that it has conceptualized quality as a multidimensional construct. This trend should be continued, as theory on service quality suggests this is an appropriate conceptualization.[37,55,56] However, a weakness of the literature has been the lack of consistency in the domains of quality studied. An important step is for future studies to be guided by more explicit definitions of quality and by conceptual frameworks delineating its domains. This will lead to greater consistency in the domains studied and will allow for better assessment of trends.

We suggest a definition of high-quality family planning service and a conceptual framework that we hope can help guide future research. The international family planning field has long recognized that high-quality care reflects technical competence, client-centeredness and a range of services and choices.[37] We therefore suggest borrowing from the international literature a definition of high-quality service as care that offers clients "a range of services that are safe and effective and that satisfy clients' needs and wants."[9]

Our suggested conceptual framework places the eight domains of quality discussed above (accessibility, communication and information, client-staff interactions, efficient and effective organization of care, technical competence, structure and facilities, method choice and patient-centeredness) in the context of broader structural, facility, provider, patient and consultation factors (e.g., funding mechanisms, client flow, provider time constraints and language barriers). We also link service quality to the outcomes it is thought to influence: clients' likelihood of returning to services, knowledge about contraception and reproductive health, safe and effective use of contraceptives and, ultimately, ability to lead safe and healthy sexual and reproductive lives. Our framework is informed by earlier work.[37,38,57,58]

The best approach to assess service quality is to rely on a range of methodologies and to attempt to capture . . . a variety of perspectives.

We also recommend that future research diversify the methodologies used to study quality. Most research has relied on surveys asking women about their experiences with family planning services. While this approach provides important insights into clients' perspective on service quality, it does not capture other perspectives, such as those of health care providers or program managers. Further, clients may not be in the best position to evaluate certain aspects of quality—most notably, the technical quality of services—and client evaluations may be subject to influences such as courtesy bias.[59] We believe the best approach to assess service quality is to rely on a range of methodologies and to attempt to capture a picture of quality from a variety of perspectives. Methodologies that might be used (or used more widely) include expert observations, medical record reviews, simulated patient visits and provider surveys. These methodologies have been used successfully in research on family planning service quality internationally. [9,10,59,60]

Even if other methodologies are used, however, client surveys are likely to remain an important approach. We have two recommendations for future studies relying on such surveys. First, researchers should pay careful attention to distinguishing clients' views on service quality from their satisfaction with services, which are distinct concepts.[61] Clients may be satisfied with services that they consider to be of low quality. Theory in this area suggests that perceptions of service quality reflect clients' beliefs about services, whereas satisfaction reflects clients' attitudes about services.[62] This distinction should be kept in mind when designing questions. Second, future research should include a broader range of clients than have previously been studied. The vast majority of studies have included only low-income adult women, likely because of interest in assessing how well Title X and Medicaid meet the family planning service needs of this population. Future studies should include other understudied groups, such as males, immigrants and women receiving private services.

In addition to descriptive research, future research should investigate a broad range of correlates of service quality. Provider-patient race concordance,[63,64] patient health needs[65] and the presence of medical interpreters during the encounter[66] influence service quality and client satisfaction in other areas of health care, and could be studied in the context of family planning services. Such research can yield important insights into the factors underlying high- and low-quality service and may provide useful information for the design of interventions to improve service quality.

Another major focus of past research has been the effect of service quality on client behavior and attitudes—specifically, contraceptive behavior. This is one of the most important areas for research, since it helps to build a strong case for improving service quality. Yet, the few studies that have been conducted have had weaknesses that limit the conclusions that can be drawn about the effect of quality: Several have relied on cross-sectional designs, nearly all of the experimental and quasi-experimental studies have been carried out among adolescents and few aspects of quality have been examined. More studies, with stronger research designs, are needed. Quasi-experimental and experimental studies provide the strongest evidence about causality, but even prospective studies provide more compelling evidence than cross-sectional ones. Future intervention studies should include more diverse groups and should assess additional domains of quality.

A further important issue to address is what "dose" of high-quality service is necessary to make a difference for clients. One visit to a high-quality provider is unlikely to have a lasting effect on clients, and this may help explain the lack of effects seen in some of the previous quasi-experimental and experimental studies on quality. It may be more reasonable to assume—and to assess the likelihood—that multiple doses of high-quality services are required to have an impact on client behavior.

Additionally, future research should attempt to learn which aspects of quality are most significant for clients' contraceptive behavior. This type of work would help to focus quality improvement efforts on the areas that have the greatest impact. Future studies should also consider whether the effect of receiving high-quality service varies with client characteristics such as age or life circumstances. Receiving high-quality services may be especially important at certain critical junctures—for example, when clients initiate use of contraceptives, or when they have had a pregnancy scare. Finally, future research in this area should assess a broader range of outcomes than have so far been studied. High-quality services may have benefits for clients that go well beyond their contraceptive use. A study in Chile found that women who received high-quality family planning services reported improvements in their self-esteem, their general health knowledge and their feelings of social connectedness.[67]

The last area covered by this review was research on clients' values and preferences regarding family planning service quality. Studies in this area have typically relied on surveys of clients. A limitation of this approach is that

closed-ended survey questions impose researchers' assumptions about which aspects of quality are most important to clients. Aspects of quality that are important to clients may have been missed simply because clients were not able to elaborate on their views. Future research in this area should employ qualitative methods, which allow for more open-ended exploration and may elicit different information from what has been found in surveys.

Finally, it would be useful for the National Survey of Family Growth to consider adding questions on service quality. One section of the survey focuses on family planning and medical services, but the only aspect of quality the 2002 survey measured in this section was counseling (respondents were asked whether specific topics were discussed at different types of reproductive health care visits).[68] Additional questions might assess other quality indicators, such as clients' views on the adequacy of information provision, client-staff interactions, or the accessibility and convenience of the services. Adding questions such as these would allow for more robust measurement of quality and would facilitate routine monitoring of family planning service quality at the national level.

From a programmatic standpoint, the picture of family planning services obtained from this review is, for the most part, quite favorable. For a number of domains of quality, such as client-staff interactions and the method choice offered to clients, service quality has generally been found to be quite high. Nevertheless, other domains could be improved—for instance, waiting times for appointments, the adequacy of communication and information exchange during visits, the adequacy of follow-up mechanisms, the patient-centeredness of services and clients' ability to see the same provider at all visits. Since research has found that the aspects of care most important to clients include receiving personalized attention, having sufficient communication and explanations from providers, and receiving affordable care, these aspects of quality should also be targeted in future quality improvement efforts. Another key finding is the variability of quality across facilities and providers. Programmatic efforts should target sites and providers that are consistently rated poorly, and efforts should be made to better understand the reasons underlying poor quality. Finally, efforts should be made to monitor all of the domains of quality rather than just selected indicators.

One limitation of our review is that we were unable to explore how programmatic and policy changes have affected family planning service quality over time. We recognize that the review covers a long time period, during which numerous programmatic and policy changes occurred that likely affected service quality. We believe this is an important area for study; however, because of limitations in the data, including the use of differing methodological approaches and different measures of quality, we could not explore it here.

In conclusion, past research on family planning service quality provides a strong foundation upon which to base future work. It is now the job of researchers to build on and strengthen this literature, so that more can be done to improve family planning services and we are better able to meet women's and men's family planning needs.

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