Client satisfaction and quality of health care in rural Bangladesh

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Objective To assess user expectations and degree of client satisfaction and quality of health care provided in rural Bangladesh.

Methods A total of 1913 persons chosen by systematic random sampling were successfully interviewed immediately after having received care in government health facilities.

Findings The most powerful predictor for client satisfaction with the government services was provider behaviour, especially respect and politeness. For patients this aspect was much more important than the technical competence of the provider. Furthermore, a reduction in waiting time (on average to 30 min) was more important to clients than a prolongation of the quite short (from a medical standpoint) consultation time (on average 2 min, 22 sec), with 75% of clients being satisfied. Waiting time, which was about double at outreach services than that at fixed services, was the only element with which users of outreach services were dissatisfied.

Conclusions This study underscores that client satisfaction is determined by the cultural background of the people. It shows the dilemma that, though optimally care should be capable of meeting both medical and psychosocial needs, in reality care that meets all medical needs may fail to meet the client's emotional or social needs. Conversely, care that meets psychosocial needs may leave the clients medically at risk. It seems important that developing countries promoting client-oriented health services should carry out more in-depth research on the determinants of client satisfaction in the respective culture.

Keywords Consumer satisfaction; Cultural characteristics; Quality of health care; Delivery of health services; Quality assurance, Health care; Attitude of health personnel; Rural health services; Bangladesh (*source: MeSH*).

Mots clés Satisfaction consommateur; Mœurs; Qualité soins; Délivrance soins; Garantie qualité soins; Attitude du personnel soignant; Service santé milieu rural; Bangladesh (*source: INSERM*).

Palabras clave Satisfacción de los consumidores; Características culturales; Calidad de la atención de salud; Prestación de atención de salud; Garantía de la calidad de atención de salud; Actitud del personal de salud; Servicios rurales de salud; Bangladesh (*fuente: BIREME*).

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Introduction

In recent years developing countries, influenced heavily by findings in developed countries, have become increasingly interested in assessing the quality of their health care. Outcomes have received special emphasis as a measure of quality. Assessing outcomes has merit both as an indicator of the effectiveness of different interventions and as part of a monitoring system directed to improving quality of care as well as detecting its deterioration (*1, 2*).

Quality assessment studies usually measure one of three types of outcomes: medical outcomes, costs, and client satisfaction. For the last mentioned, clients are asked to assess not their own health status after receiving care but their satisfaction with the services delivered (*3–5*).

In recent years the World Bank and other donors have been advising developing countries to ensure that limited resources not only have an optimal impact on the population's health at affordable cost but also that health services are client-oriented (*6–9*).

The efforts of Bangladesh to improve its health care delivery system have increasingly emphasized quality of care. In accordance with the suggestions of the World Bank, the new Health and Population Programme of the Ministry of Health and Family Welfare (MOHFW), which began operating in July 1998, is recommending a thorough organizational restructuring of the entire sector with the aim of establishing health care services that are more

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sustainable, cost-effective, and responsive to client needs.

Previous assessments of client satisfaction with services provided by government health workers in Bangladesh has usually constituted a marginal element in performance appraisals (*10–17*). These studies have mostly been limited to family planning, but one finding worth mentioning is that quality of care was not always linearly associated with the level of satisfaction expressed by clients.

Taking into account that more than 80% of the 125 million population of Bangladesh lives in the countryside, the main objective of the present study was to assess in detail the expectations of quality of care and the level of satisfaction of patients attending rural government health facilities.

A better understanding of the determinants of client satisfaction should help policy- and decision-makers to implement programmes tailored to patients' needs as perceived by patients and service providers.

Methods

The study was carried out within the framework of the Integrated Community Family Health Development Programme, a project implemented jointly by the Bangladesh MOHFW and the German Society for Technical Cooperation (GTZ), in Bogra district in the north of the country. All 55 fixed services (services offered at an established physical structure) were studied, and simple random sampling was used to select 42 outreach services (services offered by a mobile health team at the house of a community member). These services are usually provided by two nurses.

Systematic random selection of clients was carried out at each of these service delivery points. Field interviewers were selected and all persons involved in the study underwent intensive training. Particular emphasis was placed on the adequacy and accuracy of the information to be collected during exit interviews. No health service personnel were involved in collecting data. The reliability and validity of the information collected by semistructured questionnaires, as well as the reliability of the entire process of data collection, was tested outside the project area before the study was carried out.

Data on the opening and closing hours of the services as well as waiting and consultation times were not collected by the same individuals who carried out the interviews. Interviews were performed outside the compound of the health facility or house, and confidentiality of the information gathered was assured. In this way data were gathered on the services provided and client satisfaction.

Services sought by clients were divided into five categories: family planning, maternal care, female care, child care, common diseases.

Clients were asked to supply the following information about themselves: age, sex, family size, marital status, occupation, level of education, distance between their houses and the health services, means of transport, care-seeking preferences, and expectations and level of satisfaction related to waiting and consultation time and to the behaviour of providers. Clients were also asked about various aspects related to providers' technical competence during consultations. These included determining whether the service provider had asked why the client had presented for consultation, whether the client had been supplied with a description of the nature of his or her health problem, whether the client's privacy had been respected, whether a physical examination had been conducted, and whether advice had been offered.

Level of satisfaction was assessed in two steps. First, users were asked whether or not they were satisfied with the care received, and then they were asked about their level of satisfaction or dissatisfaction. During field testing this method proved to give more reliable and accurate information than a direct assessment of four levels of satisfaction (very satisfied, somewhat satisfied, somewhat dissatisfied, and very dissatisfied).

Results

The sample

A total of 1913 persons were successfully interviewed (from each service, fixed and outreach, the same number of persons was interviewed). When children were the patients, their carers were interviewed. The proportion of users who refused the interview was insignificant (<0.5%). Averages $\pm$ standard errors are shown below.

Approximately 88% of users were female, who were in general significantly younger than men (age: 9.3 $\pm$ 0.2 years, vs 35.6 $\pm$ 1.2 years). Most of the users were married, and 18% were children under 5 years of age.

About 61% of respondents had never attended school, reflecting roughly the national educational pattern.

The services

The majority (87%) of clients lived either in the village where the health services were provided or within 1 mile of it. Although the official working hours are from 9:00 to 17:00, the services were open to the public for a median time of about 4 hours. Half of the facilities opened at 9:47, whereas 25% of them opened after 10:20.

In accord with practices in all government health facilities in Bangladesh, people coming to the health services registered and waited their turn for consultation. The same health worker provided services to people, irrespective of the condition they presented with. On average, 40 patients used the facilities daily, with the average waiting time at those facilities being 30 $\pm$ 2.5 min. The median waiting time was 19 min. Fig. 1 shows the waiting time according to the nature of the service provided. Sufficient consultation time is of particular impor-

Fig. 1. **Boxplot showing client waiting times according to services received.** Boxes show the 95% distribution limits and bars the 97.5% distribution limits. Horizontal lines within the boxes show the median values. Widths of boxes correlate with the sample size in the various sub-categories.

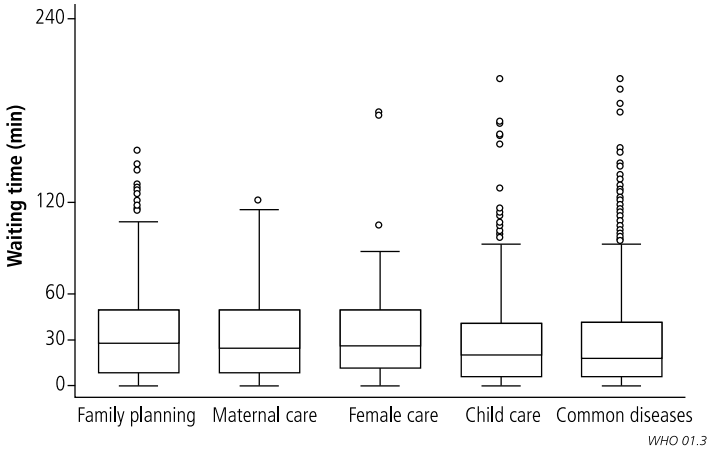
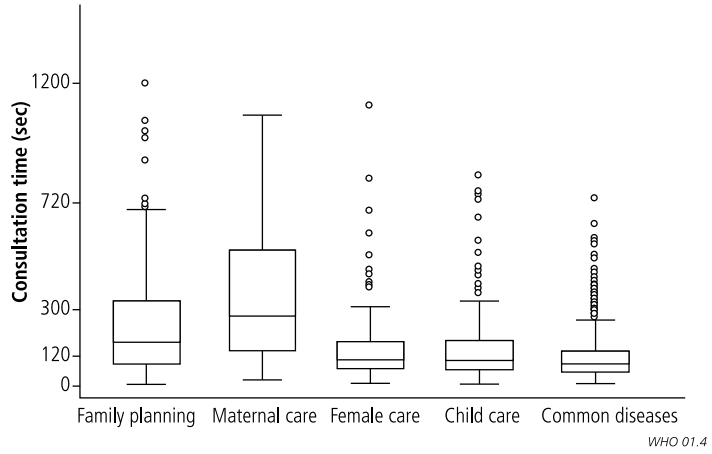


Fig. 2. **Boxplot showing consultation times according to services received.** See legend to Fig. 1 for explanation of symbols.



tance for provider–patient interrelations and for appropriate medical management of patients. The average consultation time at the facilities was about 2.33 min (median = 1.5 min). On average, patients coming for maternal care services spent more time with the provider (about 6 min; median, 4.5 min) than users of other types of services (Fig. 2).

The study investigated in detail the provider's behaviour in relation to the different services (family planning, maternal care, female care, child care, common diseases, and other services).

Privacy was felt to be necessary by 19.5% of users, who were almost all women coming for family planning, maternal care, or female care services. However, privacy was maintained for less than half (45.1%) of these clients.

The proportion of providers willing to ask patients their reasons for attending was relatively high (82.3%), but providers gave advice to only 53.5% of clients, and they gave some sort of explanation about the nature of their health problem only to 48.9%. A physical examination was performed on only 29% of all patients. No significant difference was found among health facilities, but providers performed physical examinations on 81.3% of patients for maternal care services, as opposed to 25.8% and 16.6% of clients coming for family planning and female care, respectively.

It is important to note that outreach services differed from fixed services only in terms of waiting and consultation times. Waiting time at outreach services was, on average, about double (41 min) that at fixed services (22 min). Also service providers at outreach services spent about 30 sec longer with their patients than at fixed services.

Users' expectations and their satisfaction with the services

A significant proportion of users (34.2%) were not satisfied with the length of time that the facilities were open to the public. About a third (28.2%) of all users were not satisfied with the time they waited to receive care. The average waiting time for these users was 57.1 $\pm$ 4.2 min compared with 21.4 $\pm$ 1.6 min for those who were satisfied (Fig. 3). Moreover, patients presenting for maternal care were significantly more dissatisfied (37.6%) than clients presenting for other types of services.

With respect to waiting time, the expectations of users were far from reality. Thus, the average waiting time clients would be satisfied with was 10.6 $\pm$ 0.3 min. Half the clients considered 8 min the maximum time they could wait in order to be satisfied, whereas only 25% would accept $\geqslant$12 min. Waiting time expectations did not vary significantly among patients presenting for different services or among fixed and outreach facilities. In addition, individual variables such as sex, marital status, level of education, number of children, and occupation did not have a significant influence.

Only 8.3% of users were not satisfied with the length of consultation time. Patients presenting for female care were significantly more likely to be dissatisfied. The average consultation time among satisfied people was 147.4 $\pm$ 6.2 sec (about 2.5 min) compared with 87 $\pm$ 7.4 sec (1.5 min) among dissatisfied patients (Fig. 4). This trend was similar for both fixed and outreach health services.

Satisfaction with the provider's usual behaviour was expressed by 68.9% of patients. Almost all patients expected respect and politeness from the provider, irrespective of whether they used fixed facilities or outreach services. Only a small proportion of patients referred to elements of the provider's competence and expected, for example, to receive a physical examination, advice, or information about their health problem.

A total of 68% of patients expressed satisfaction with the services usually rendered, but almost half (45%) the clients presenting for female care were not satisfied at all. Multivariate analysis revealed that when the satisfaction of the patients with the overall

services was modelled against individual variables such as length of consultation time, ensuring privacy when needed, physical examination, information on the health problem, and advice given by the service provider, all of these were positively associated with the satisfaction of users, whereas the length of waiting time was negatively associated.

Consistent with the findings discussed above under Services, the study showed that outreach service users were more likely to be dissatisfied ($P < 0.001$) with waiting times than were their counterparts from fixed services. They were, however, as satisfied as their counterparts with respect to consultation times and the way the services are usually provided.

Assuming that client satisfaction with the overall services provided is a function of the level of satisfaction for each of the variables assessed, multivariate analysis did demonstrate that satisfaction with the politeness of the provider was the most powerful predictor variable, followed by satisfaction with the provider's respect for privacy, waiting time, and consultation time.

Fig. 3. **Boxplot showing waiting times according to level of satisfaction with them.** See legend to Fig. 1 for explanation of symbols.

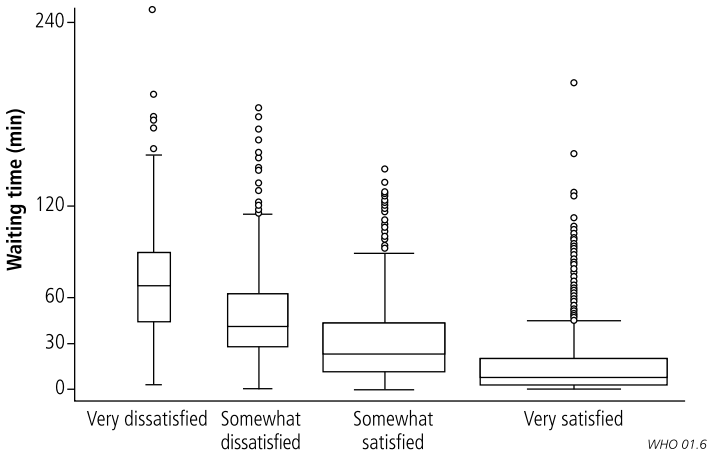
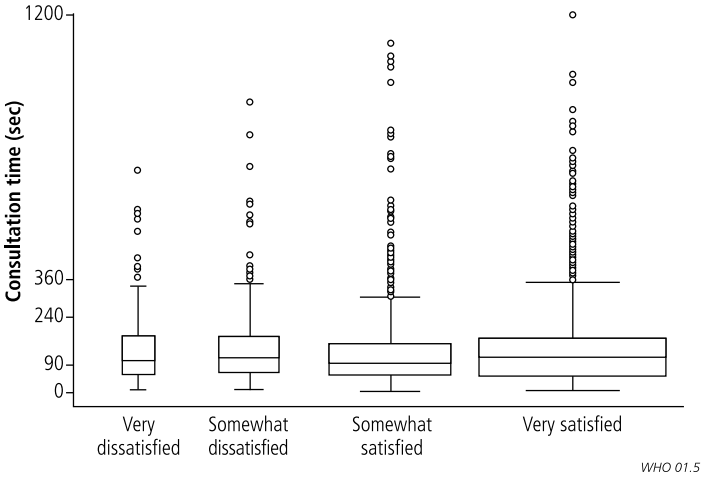


Fig. 4. **Boxplot showing consultation times according to level of satisfaction with them.** See legend to Fig. 1 for explanation of symbols.



Discussion and conclusions

An increased emphasis on users' assessment of health care services in recent studies has been motivated either by a perceived need to "democratize the health services", counteracting "the powerful interests of the profession and the state", or by a wish to stress the interests of the patient as consumer, emphasizing consumer sovereignty. According to some reports, provision of health care is expected to respond directly to patients' preferences and demands (*18*). However, this concept may ignore study findings that show that the concept of the patient as consumer does not encompass all the important characteristics of a patient and that not all patients wish to be treated as consumers (*19*).

On the other hand, the efficacy of medical treatment is enhanced by greater patient satisfaction (*18, 20*). Consequently, patient satisfaction is undoubtedly a useful measure, and to the extent that it is based on patients' accurate assessments, it may provide a direct indicator of quality care.

Our study is restricted to the views of users of health services. Nevertheless, it has identified bottlenecks in the health service delivery system that need to be addressed in order to improve the technical and behavioural quality of government health and family planning services. This will lead to better management of health problems and to fewer unsatisfied patients.

Moreover, this study highlights the gap between the notion of patient satisfaction as an element representative of quality of care and high-quality health care from a professional point of view. Thus, the most powerful predictor for client satisfaction with government health services was the provider's behaviour towards the patient, particularly respect and politeness. This aspect was much more important than the provider's technical competence (characterized by elements such as explaining the nature of the problem, physical examination, and giving advice). The second most powerful predictor for being satisfied was the respect for privacy, followed by short waiting times. In order to be satisfied, patients expected waiting times of less than 11 min on average — this should be contrasted with the normal situation in developed countries, where waiting times, even with a prior appointment, are rarely less than 15 min.

Furthermore, reducing waiting times (to 30 min at most) was more important to clients than prolongation of consultation times (on average, 2 min, 22 sec). The average consultation time was twice as long in the project area as in other parts of Bangladesh (study by UNICEF in 1992), and 75% of clients were satisfied with its length, although it seems rather short from a professional standpoint. It might be claimed, however, that this consultation time could suffice if the health condition and reason for consultation were simple enough to allow a diagnosis

from simply taking a medical history. In this regard, findings from studies assessing the performance of providers (*10–17*) confirmed that a short consultation time did not allow correct diagnosis or management of the condition for which patients presented. That the majority of patients were satisfied might reflect a low expectation level owing to their lifelong experience of spending a short time with health care providers or that the expectations of patients are directed on a priority basis towards other elements of care (e.g. the provision of medicaments or the provider's politeness).

Another study finding that clearly differentiates patients' views about quality from those of providers relates to physical examination. Only 29% of clients underwent a physical examination, but only 16 (all males) out of 1913 clients interviewed stated that they expected a thorough physical examination from the provider. In Bangladesh, patient satisfaction would be expected to decrease if a physical examination were performed on all patients, because in Bangladeshi society women should not be touched, particularly not by men who are not their husbands.

The results of this study confirm findings in developed and some other developing countries that the perception and judgement of quality are highly individualistic and dynamic, in the sense that the criteria or elements used for judging quality at one moment may not be the same for the next, and that consequently client satisfaction reflects only part of the quality of the entire health care process. This aspect should not be misunderstood or overestimated, nor should it replace the notion of quality care (*21*). Our findings also underscore the dilemma that although optimally care should meet both medical and psychosocial needs, in reality care that meets all medical needs may fail to meet clients' emotional or social needs. Conversely, care that meets psychosocial needs may leave clients medically at risk.

Indeed, ensuring quality demands as a prerequisite the answer to questions such as, "What are the elements in the process of delivering care that affect client satisfaction and to what degree?", "To what degree does the meaning of quality differ between laypersons and professionals?" and "To what extent does patient satisfaction reflect the "real" level of quality of care received?" These considerations lead ultimately to the question, "What is quality of care?" (*22–24*), the answer to which might differ from country to country or at least from culture to culture. Our study answers part of this question for the context of Bangladesh, showing that the perceived technical quality of care for the client plays a lesser role in affecting satisfaction than the interpersonal nature of care, access to care, or continuity of care.

In Bangladesh the new national Health and Population Sector Programme is committed to improving the quality of services as a means of increasing the use of government health facilities. It is in this context of seeking a way to attract more people that the client focus emerges with singular force. But patients and laypersons may understand quality in a different way from health care professionals. Thus it is necessary that increased efforts be oriented to clarify and specify the meaning, relevance, and limitations of the idea of client satisfaction in Bangladesh. Research should make explicit what aspects of care its findings on client satisfaction refer to. The results of research will enable policy-makers and decision-makers to improve the quality of health care effectively, keeping a balance between providers' and patients' ideas of what quality of health care means. ■

Conflicts of interest: none declared.

Résumé

Satisfaction des patients et qualité des soins dans les zones rurales du Bangladesh

Objectif Evaluer les attentes des usagers et leur degré de satisfaction ainsi que la qualité des soins dispensés dans les zones rurales du Bangladesh.

Méthodes Mille neuf cent treize personnes choisies par échantillonnage aléatoire systématique ont été interrogées avec succès immédiatement après avoir reçu des soins dans les services de santé publics.

Résultats Le meilleur facteur prédictif de la satisfaction des patients concernant les services publics était le comportement des prestataires, spécialement le respect et la politesse. Cet aspect était beaucoup plus important pour les malades que la compétence technique des prestataires. Une réduction du temps d'attente (30 minutes en moyenne) était en outre plus importante pour les patients qu'un allongement de la durée, assez brève (du point de vue médical), des consultations (2 min 22 s en moyenne), 75 % des patients étant satisfaits. L'attente, qui était environ deux fois plus longue dans les services périphériques que dans les services fixes, était le seul aspect dont les usagers des services périphériques étaient mécontents.

Conclusion Cette étude souligne que la satisfaction des patients est fonction du contexte culturel. Idéalement, les soins devraient répondre à la fois aux besoins médicaux et psychologiques, mais l'étude montre qu'en réalité des soins satisfaisant à tous les besoins médicaux ne répondent pas nécessairement aux besoins affectifs ou sociaux des patients, et que l'on est donc devant un dilemme. A l'inverse, des soins qui répondent aux besoins psychologiques des patients peuvent les laisser médicalement exposés. Il apparaît important que les pays en développement qui privilégient les services de santé axés sur les malades fassent des recherches plus approfondies sur les déterminants de la satisfaction des patients dans leurs cultures respectives.

Resumen

Satisfacción de los usuarios y calidad de la atención de salud en zonas rurales de Bangladesh

Objetivo Evaluar las expectativas de los usuarios y su grado de satisfacción, así como la calidad de la atención de salud dispensada en zonas rurales de Bangladesh.

Métodos Un total de 1913 personas seleccionadas mediante un procedimiento de muestreo aleatorio sistemático fueron entrevistadas de forma satisfactoria inmediatamente después de haber recibido asistencia en centros de salud públicos.

Resultados El principal factor predictivo de la satisfacción de los usuarios con los servicios públicos fue la actitud del proveedor de asistencia, especialmente en lo tocante al respeto y la amabilidad. Para los pacientes este aspecto fue mucho más importante que la competencia técnica del proveedor. Además, los usuarios consideraban más importante la reducción del tiempo de espera (como promedio de unos 30 min) que la prolongación del ya muy reducido (desde el punto de vista médico) tiempo de consulta (como promedio de 2 min, 22 seg), con el que estaban satisfechos el 75% de los usuarios. El tiempo de espera, aproximadamente del doble en los servicios periféricos que en los servicios fijos, fue el único aspecto con el que los usuarios de los primeros se mostraron insatisfechos.

Conclusión Este estudio subraya que la satisfacción de los usuarios depende de cuál sea su medio cultural. Ilustra el dilema de que, aunque lo ideal es que la atención satisfaga tanto las necesidades médicas como las psicosociales, en realidad la atención que satisface todas las necesidades médicas puede no responder a las necesidades emocionales o sociales del usuario; en cambio, la atención que cubre estas últimas puede dejar a los usuarios en una situación de riesgo desde el punto de vista médico. Parece necesario que los países en desarrollo que promueven servicios de salud orientados al cliente investiguen más a fondo los determinantes de la satisfacción de los usuarios en sus respectivas culturas.

References

1. **Epstein A.** Sounding board: the outcomes movement, will it get us where we want to go? *New England Journal of Medicine*, 1990, **323** (4): 266–269.
2. **Blumenfeld SN.** Quality assurance in transition. *Papua New Guinea Medical Journal*, 1993, **36** (2): 81–89.
3. **Fisher AW.** Patient's evaluation of outpatient medical care. *Journal of Medical Education*, 1971, **46** (3): 238–244.
4. **Smith WA.** *Consumer demand and satisfaction. The hidden key to successful privatization.* Washington, DC, Academy for Educational Development, HealthCom, Communication for Child Survival, 1989.
5. **Barnett B.** Women's views influence choice. *Network*, 1995, **16** (1): 14–18.
6. **De Geydnt W.** *Managing the quality of health care in developing countries.* Washington, DC, The World Bank, 1995.
7. **Calnan M et al.** Major determinants of consumer satisfaction with primary care in different health systems. *Family Practice*, 1994, **11**(4): 468–478.
8. **Kwan M.** When the client is the king. *Planned Parenthood Challenges*, 1994, **2**: 37–39.
9. **Williams T, Schutt-Aine J.** Meeting the needs, client satisfaction studies: a simple, inexpensive way to measure quality. *Forum*, 1995, **11** (1): 22–24.
10. **Whittaker M et al.** *Rural women's perspectives on quality of family planning services.* Dhaka, Bangladesh, ICDDR/B, 1993 (Working Paper No. 85 MCH-FP Extension Project).
11. **Khanun P et al.** *Service delivery at the union health and family welfare centers: the client's perspective.* Dhaka, Bangladesh, ICDDR/B, 1994 (Working Paper No. 110, MCH-FP Extension Project).
12. **Mabub F, Huq Md N, Rashid MA.** *An assessment of counselling for clinical FP methods in GOB clinics.* Dhaka, National Institute of Population Research and Training, 1991.
13. **Hashemi S, Hossain Z.** *Evaluation of knowledge and skills of field level workers of health and FP programs, Dhaka, Bangladesh.* Dhaka, PDEU, Implementation Monitoring and Evaluation Division, Ministry of Planning, 1995.
14. **Al-Sabir A et al.** *Evaluation of FWVs skills as MCH-FP services providers in Bangladesh.* Dhaka, National Institute of Population Research and Training, 1995.
15. **Hossain MB, Mita R, Haaga JG.** *Quality of care and contraceptive adoption in rural Bangladesh: MCH-FP extension project areas.* Dhaka, Bangladesh, ICDDR/B, 1991 (Working Paper No. 61, MCH-FP Extension Project).
16. **Hasan M et al.** *Accessibility and services in satellite clinics: findings from exit interview.* Dhaka, Bangladesh, ICDDR/B, 1994 (Working Paper No. 98, MCH-FP Extension Project).
17. **Kamal GM et al.** *The quality of NORPLANT services in Bangladesh.* Dhaka, Associates for Community and Population Research (ACPR), 1991.
18. **Calnan M.** Towards a conceptual framework for lay evaluation of health care. *Social Science and Medicine*, 1988, **27**: 927–933.
19. **Lupton D, Donaldson C, Lloyd P.** Caveat emptor or blissful ignorance? *Social Science and Medicine*, 1991, **33**: 559–568.
20. **Fitzpatrick R.** Surveys of patient satisfaction: I. Important general considerations. *British Medical Journal*, 1991, **302**: 1129–1132.
21. **Brian W.** Patient satisfaction: a valid concept? *Social Science and Medicine*, 1994, **38**: 509–516.
22. **Ware JE et al.** Defining and measuring patient satisfaction with medical care. *Evaluation and Program Planning*, 1983, **6**: 247–263.
23. **Palmer RH, Adams MME.** Quality improvement/quality assurance: a framework. In putting research to work in quality improvement and quality assurance. Washington, DC, Agency for Health Care, Policy and Research, 1993, **90**-0034.
24. **Donabedian A.** The quality of care: how can it be assessed? *Journal of the American Medical Association*, 1988, **260**: 12.