

Satisfaction with Family Planning Services

Interpersonal and Organisational Dimensions

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ABSTRACT

In South Africa, client satisfaction with the quality of health care has received minimal attention; probably due to the lack of locally developed and tested measures. Therefore, we developed and tested a 20-item attitude scale to determine satisfaction with Family Planning (FP) services. The objectives of this study were to: ascertain reliability of the scale and confirm, through factor analysis, that satisfaction with the FP service was based on interpersonal and organisational dimensions. The sample comprised 199 black adult interviewees (158 women and 41 men), who had previously used or were currently using contraception, from an informal settlement in Gauteng, South Africa. Three items were removed from the scale due

to unacceptable communality estimates. The reliability coefficient of 0.76 for the 17-item scale was satisfactory. The principal components analysis, with orthogonal and oblique rotations, extracted two factors; accounting for 51.8% of the variance. The highest loadings on Factor I involved an interpersonal dimension (friendly, encouraging, competent, informative and communicative). Factor II tended to focus on the organisational elements of the system, such as different methods, choice of methods, service availability and length of waiting time. It was concluded that this scale was a reliable, easily administered and scored measure of satisfaction, with underlying interpersonal and organisational dimensions.

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OPSOMMING

In Suid-Afrika het kliënt tevredenheid met die kwaliteit van gesondheidsorg wat hulle ontvang tot op hede baie min aandag geniet. Dit is baie moontlik as gevolg van die gebrek aan plaaslik ontwikkelde en getoetsde maatinstrumente. Ons het dus 'n 20 item houding skaal wat tevredenheid met gesinsbeplannings dienste meet, ontwikkel en getoets. Die doel van die studie was: om die betroubaarheid van die skaal te bepaal en om met behulp van faktor-analise te bevestig dat tevredenheid met gesinsbeplannings dienste gebaseer is op interpersoonlike en organisatoriese dimensies. Die steekproef het uit 199 swart volwassenes (158 dames en 41 mans) wat of voorheen of tans Nn geboortebeperkings middel gebruik het, bestaan. Hulle het uit 'n informele huisvestingsgemeenskap in Gauteng, Suid-Afrika gekom. Drie items is uit die skaal verwyder aangesien hulle ooreen-

stemmings beramers onaanvaarbaar was. Die betroubaarheidskoeffisiënt van 0,76 vir die 17-item skaal was wel aanvaarbaar. Die hoofkomponent analise met ortoganale en skuins rotasies, het 2 faktor uitgewys. Hierdie 2 faktore het 51,8% van die variansie verklaar. Die hoogste ladings op Faktor I het 'n interpersoonlike dimensie (vriendelik, aanmoedigend, bevoeg, informatief en kommunikerend) bevat. Faktor II was geneig om klem te lê op die organisatoriese elemente van die sisteem, soos die verskillende metodes, die keuse van metodes, die beskikbaarheid van die diens en die lengte van die wagtyd. Die gevolgtrekking wat gemaak is, is dat hierdie skaal wel betroubaar is, dat dit maklik is om te gebruik en dat dit die mate van tevredenheid met onderliggende interpersoonlike en organisatoriese dimensies, kwantifiseer.

INTRODUCTION

Client satisfaction is regarded as one of the desired outcomes of care, an element in health status, a measure of the quality of care (World Health Organization, 1989), and "as indispensable to assessments of quality as to the design and management of health care systems" (Donabedian, 1988: 1746). Patient satisfaction has been shown to predict utilisation of health services (Hays, 1985; Larsen and Rootman, 1976), continuity with health provider (Baker, 1990), compliance with treatment, and recall of medical information (Kinney, Bradshaw and Ley, 1975; Ley, 1982).

Various studies have shown that satisfaction is related to technical and interpersonal competence, more partnership building, more immediate and positive nonverbal behaviour, more social conversation, courtesy, consideration, clear communication and information, respectful treatment, frequency of contact, length of consultation, service availability and waiting time (Bruce, 1990; Hall, Roter and Katz, 1988; Singh, Mustapha and Haqq, 1996).

Global measures of satisfaction are not recommended as consumers of health care usually report high levels of satisfaction, with very little variation in responses (Carr-Hill, 1992). Various surveys in the United Kingdom, Zimbabwe, Saudi Arabia and South Africa have reported that over 80% of respondents state that they are satisfied with the quality of health care they receive, despite deficiencies in manpower, skills, equipment and facilities; lengthy waiting times; and extremely short consultations (Carr-Hill, 1992; CASE, 1995; Mansour and Al-Osimy, 1996; Sikosana, 1994). Although these findings may reflect a reluctance to complain about services, acceptance of low standards of care, or even low levels of expectation concerning free health care (Decision Research, 1991); such high levels of assent, undifferentiated across populations, cast doubt upon measures of global satisfaction with health care.

Several self-response questionnaires have been developed and tested in the USA and the UK (Baker, 1990; Hulka, Zyzanski, Cassel and Thompson, 1970; Ware, Snyder, Wright and Davies, 1983). These questionnaires focus predominantly on satisfaction with physicians (medical doctors). In South Africa, health care is delivered by nurses within a primary health care setting. In addition, a large proportion of the black population is functionally illiterate, which makes self-response instruments invalid. The lack of validity of global satisfaction

measures, the necessity of developing local satisfaction measures, and the paucity of South African research on quality of health care (Strachan and Harrison, 1995) led us to develop and test a scale to measure satisfaction with Family Planning services. We hypothesised that satisfaction comprised interpersonal and organisational dimensions. We investigated the reliability (internal consistency) of the scale and used factor analysis to confirm the hypothesis.

MATERIALS AND METHODS

The Interview Schedule

An interview schedule was designed to obtain information on: demographic details (age, gender, ethnicity, marital status, and educational and occupational levels); contraceptive prevalence; feelings about contraception; and attitudes towards the Family Planning (FP) service.

The initial page of the interview schedule contained a brief outline of the study, assured confidentiality of responses and a statement of signed consent for participation in the study.

There were 20 statements, adapted from a previous measure (Westaway, Viljoen and Chabalala, 1997), designed to measure attitudes towards the FP service. Items on the scale reflected satisfaction with interpersonal and organisational aspects.

For example, respondents were asked whether they perceived the FP service as friendly, encouraging, helpful, supportive, informative, communicative and competent (interpersonal); available, keeps waiting times short, maintains contact, offers different methods, and allows choice and change of methods (organisational). All statements were scored on a five-point scale, ranging from 1 (very dissatisfied) to 5 (very satisfied) and summed (possible range: 20 to 100).

Study Site

Since the area was declared an informal settlement in 1990/1991, by the then Transvaal Provincial Administration, the population has considerably expanded to an estimated 200,000 persons (McCarthy, Hindson and Oelofse, 1995). The bulk (83%) of the dwellings are shacks. Basic services (an aqua privy for sanitation, 1 water standpipe/20 stands and weekly refuse removal) are provided by the local authority and beneficiaries pay a site rental. Virtually all stands have electricity.

Few residents have completed high school. Although reported unemploy-

ment levels were relatively low (17%) in 1995, most residents say that they are unemployed. Possibly this is due to residents participating in informal sector economic activities: selling fruit, vegetables, beer, cold drinks and second hand clothes; hairdressing; refilling batteries; and casual labour. Formal sector employment is predominantly unskilled or semi-skilled such as cleaning, domestic work, gardening and packing.

There are five local authority clinics that offer a free Family Planning (FP) service on Monday, Wednesday and Friday mornings. All nurses are involved in the provision of family planning. FP attenders receive a client-held card, with the name of the clinic, method and return date recorded. The clinics also keep files for their attenders.

Procedure

Permission for the study was obtained from the Medical Research Council's Ethics Committee, the Department of National Health, the local authority, the North-East Health Forum, the health section of the RDP in the informal settlement and the Civic Association.

A resident of the informal settlement was employed as an assistant researcher on the project. Interviews were conducted with 135 women who attended a FP clinic; 28 women, who did not attend a FP clinic; and 81 men. The attitude scale was administered to those women and men who were currently using or previously used a FP service.

Statistical Analyses

Epi-Info, Version 6.04, and the statistical packages SPSS and SAS were used for data analysis. Descriptive statistics and frequency tables were the first step in the data analysis. Coefficient alpha was used to ascertain the internal consistency of the satisfaction scale (Cronbach, 1970). Kruskal-Wallis and t tests were conducted on overall satisfaction scores to ascertain differences by gender, age, education, marital status and employment status.

Factor analysis was used to determine the dimensions of satisfaction. A direct solution (principal components analysis) was the first step. As items with unique variance of 0.70 or more tend to be unreliable (Child, 1970), only items with communality estimates of 0.30 or more were taken into consideration. Both orthogonal (VARIMAX) and oblique (PROMAX) rotational solutions were used and comparisons made between the two on simple structure (Boyle, 1985). In order to ascertain significant loadings at the 1% level, loadings greater than 0.30 were examined (Child, 1970; Nunnally, 1978).

RESULTS

Demographic Details

The scale was administered to 199 interviewees (158 women and 41 men), who had previously used or were currently using contraception. The average age was 28.3 years (sd = 9.4); 37% were Zulu-speaking, 19% were Pedi-speaking, 14% were Xhosa-speaking and 30% spoke Tsonga, Tswana, Swazi, Ndebele or Venda. Some 71% said that they were single and 28% were married (legal or traditional marriage).

Five women had no formal education; 23% had some primary school education and 75% had some high school education: Standard 6-8 (51%) and Standard 9-10 (24%). Twenty six per cent were employed in unskilled or semi-skilled occupations such as domestic worker or labourer and 74% said that they were unemployed.

Reliability

Average scores for each item on the scale ranged between 1.16 and 4.11 (Table 1). Satisfaction levels were higher for interpersonal aspects (ie, friendliness and encouragement) than organisational aspects (ie, follow-up and maintenance of contact).

The overall level of satisfaction with the service was 63.4 (sd = 8.8), with a range of 39 to 87. Only 56 respondents (28%) scored in the upper quartile, indicating that overall satisfaction levels were lower than reported previously (CASE, 1995). Coefficient alpha was 0.77, demonstrating a high level of internal consistency (Nunnally, 1978).

Gender ($p = 0.57$), age ($p = 0.99$), schooling ($p = 0.80$), marital status ($p = 0.93$) and employment status ($p = 0.10$) were not significantly related to satisfaction, suggesting that the scale was suitable for different populations.

Factor Analysis

The correlation matrix was used as the starting point for the direct analysis by the principal components method and two factors were extracted. The communality estimates for three variables (support, maintenance of contact and follow-up) were unacceptable (Child, 1970). These three items were removed from the scale and a principal components analysis, with orthogonal (VARIMAX) and oblique (OBLIMIN) rotational solutions, was conducted on the remaining 17 items. Coefficient alpha for the 17-item scale was 0.76, indicating that the removal of these three items made very little difference to the internal consistency.

**Table 1 Attitudes towards the Family Planning Service
No. = 1999**

Items	m	sd	α
1. Friendly	3.8	0.8	0.74
2. Encouraging	3.9	0.7	0.75
3. Lets know what expected	3.6	0.7	0.76
4. Helpful	3.4	0.7	0.75
5. Listens to problems	3.2	0.8	0.75
6. Supportive with family	2.3	0.9	0.76
7. Lets me talk	3.2	0.9	0.75
8. Fair	4.0	1.1	0.75
9. Available suitable times	2.1	1.4	0.79
10. Consistent information	4.0	1.2	0.77
11. Keeps waiting times short	2.2	1.4	0.77
12. Maintains contact	1.3	1.0	0.79
13. Different methods	4.0	1.3	0.79
14. Allows choice	4.1	1.2	0.78
15. Allows change	3.8	1.2	0.77
16. Information sensitive	3.2	1.1	0.74
17. Information pertinent	3.3	1.1	0.73
18. Follow-up service	1.2	0.6	0.77
19. Competent service	3.3	0.9	0.74
20. Communication understood	3.4	0.9	0.74
Total	63.4	8.8	
Coefficient alpha			0.77

Table 2 Principle Components Matrix for Attitudes towards the Family Planning Service

Items	Common factor		Communality h^2
	I	II	
1. Friendly	0.82	-0.08	0.67
2. Encouraging	0.73	0.07	0.56
3. Lets know what expected	0.57	0.19	0.36
4. Helpful	0.68	-0.03	0.46
5. Listens to problems	0.60	0.08	0.36
6. Lets me talk	0.56	0.03	0.32
7. Fair	0.54	0.43	0.47
8. Available suitable items	0.11	-0.55	0.32
9. Consistent information	0.30	0.47	0.30
10. Keeps waiting times short	0.45	-0.46	0.42
11. Different methods	-0.18	0.82	0.70
12. Allows choice	-0.15	0.85	0.75
13. Allows change	0.06	0.77	0.59
14. Information sensitive	0.71	0.06	0.51
15. Information pertinent	0.80	0.06	0.64
16. Competent service	0.82	-0.05	0.68
17. Communication understood	0.82	-0.06	0.68
Eigen-value	5.999	3.136	9.135
Percentage variance	34.31	17.48	51.79

Table 3 VARIMAX and PROMAX Rotational Solution for Attitudes towards the Family Planning Service

Items	VARIMAX		OBLIMIN	
	I	II	I	II
1. Friendly	80	-15	81	-15
2. Encouraging	75	01	75	01
3. Lets know what expected	58	15	58	15
4. Helpful	68	-08	68	-08
5. Listens to problems	60	03	60	03
6. Lets me talk	56	-02	56	-02
7. Fair	57	38	57	38
8. Available suitable items	06	-56	06	-56
9. Consistent information	34	44	34	44
10. Keeps waiting times short	41	-50	41	-50
11. Different methods	-11	83	-11	83
12. Allows choice	-08	86	-08	86
13. Allows change	12	76	12	76
14. Information sensitive	72	00	72	01
15. Information pertinent	80	-01	80	-00
16. Competent service	82	-12	82	-12
17. Communication understood	81	-13	81	-13

The variance extracted by the first factor was 34.3% and 17.5% for the second factor; the total extracted variance for the two factors was 51.8% (Table 2).

The factor patterns and loadings were similar for the VARIMAX and OBLIMIN solutions. Factors I and II contained 20 significant loadings (> 0.30), with three variables loading on two factors (Table 3).

Factor loadings are described in terms of the most frequent responses (satisfied or dissatisfied) with the statements. In accordance with the hypothesised dimensions of satisfaction, the loadings on Factor I seem to involve interpersonal aspects. The relevant variables were: competent (0.82); friendly (0.81); pertinent information for needs (0.80); communication understandable (0.80); encouraging (0.75); and information sensitive to needs (0.72). More weakly related variables were: helpful (0.68); listens to problems (0.60); lets me know what is expected (0.58); fair (0.57); and lets me talk about my needs (0.56).

Factor II tended to focus on the organisational dimension, with high loadings on offers different methods (0.83), allows for a choice of methods (0.86) and allows me to change methods (0.76). More weakly related variables were: availability of the service (-0.56) and keeps waiting times short (-0.50).

DISCUSSION

The average item scores showed that

respondents were least satisfied with some of the organisational elements of the Family Planning service, such as follow-up, maintenance of contact, availability and waiting times. These findings were similar to those reported in previous research (Carr-Hill, 1992; Mansour and Al-Osimy, 1996). In contrast, respondents were most satisfied with the interpersonal dimensions of friendliness, encouragement and fairness of the service, indicating a definite improvement in the quality of this FP service (Decision Research, 1991).

According to Nunnally (1978), a reliability coefficient of 0.70 is adequate for research purposes. Coefficient alpha for the present scale was 0.76, indicating that the 17 items were a homogeneous measure of attitudes towards the Family Planning service.

The principal components analysis, with virtually identical orthogonal and oblique rotational solutions, confirmed the hypothesis that satisfaction was based on interpersonal and organisational dimensions. Factor I accounted for 34.3% of the variance and was labelled the interpersonal dimension due to high loadings on friendliness, competency, information and communication. Factor II, which accounted for 17.5% of the variance, was summarised as the organisational dimension due to high loadings on methods, service availability and length of waiting time.

In contrast with a previous study (Etter and Perneger, 1997), the interpersonal

dimension of satisfaction included traditional aspects (ie, friendliness, encouragement, helpful) along with the less traditional aspects of information and communication (ie, sensitive, pertinent, understandable). The organisational dimension substantiated Bruce's (1990) proposition that method mix and choice are essential components of FP services.

The reliability coefficient, principal component analysis and factor analysis demonstrated that this scale was a useful attitudinal measure. It is short, easily administered and scored; allows for reliable measurement of patient satisfaction and directly links patient satisfaction to interpersonal factors. Future research is needed with the scale to ascertain whether: (1) satisfaction is related to continuity and compliance with contraception; and (2) satisfaction with all health service delivery systems is based on interpersonal and organisational dimensions.

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