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Research article

Patient Satisfaction and Factor of Importance in Primary Health Care Services in Botswana

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ABSTRACT: Primary health care involves a sustained partnership between patients and providers that addresses the majority of a population's health needs over time. Lengthy waiting time, poor access, lack of information and healthy relationship with healthcare workers in outpatient clinics remain a challenge to quality care. The objective of the study is to assess patient satisfaction and factor of importance on the service they receive at the primary health care facility in Botswana. The study was a cross sectional study in which 360 systematically selected participants completed 5 point likert scale self-administered questionnaire to rate their satisfaction level as well as factors of importance where best service was provided. Results showed that pharmacy received the highest satisfaction level with a mean rating of 4.1 while the nurse got the least level of satisfaction with a mean rating of 3.4 in terms of services rendered. 14.4% of participants still think time is not important to them as factor for as long as they got what they wanted. Majority (63.9%) were most displeased with the time spent at the facility. Participants mentioned that increase in manpower (36%) and staff training (15%) stood out as areas that need to be significantly considered for improvement. Time spent in the facility is a great source of dissatisfaction to participants. There is a need for interventions in terms of increased manpower, training of staffs with regard the areas which participants indicated as displeased with.

Keywords: Patient, Satisfaction, Factor, Importance, Primary Health Care, Botswana

INTRODUCTION

Patients health largely depend on the primary health care sector of the country that provide care directly. Primary care involves a sustained partnership between patients and providers that addresses the majority of a population's health needs over time. It is crucial that primary health care providers are engaged in ensuring that their patients are able to access timely diagnostic, treatment and rehabilitative services (Bonnie *et al*, 2007). The increasing evidence that the service aspects of health care are closely linked to

health care outcomes and it has caught the attention of industry leaders (Surjit, 2002). Patient satisfaction has emerged as an increasingly important parameter in the assessment of healthcare quality (Bar-dayan *et al*, 2002).

In improving the service delivery in primary healthcare clinic, there is a need to put at high priority the consumerism and their level of satisfaction with the provided services. Patients' perception of satisfaction is an aspect of healthcare quality that is being increasingly recognized for its importance (Dansky and Miles, 1997). The current consumer of health is better educated and informed than ever before and this has led to the need to address the aspects of service most readily appreciated (Surjit, 2002). A positive patient's perception of care often times translate to a more positive outcome in their clinical experience and satisfaction is thus assured (Leiyu *et al*, 2002). It is evidenced that addressing patient's perceptions appropriately leads to improved health care and this will go a long way in increasing their level of satisfaction (Surjit, 2002). A study of patient's satisfaction showed that patients were dissatisfied with several aspects of access, including waiting areas and

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the physical environment (Hana and Martin, 2005). Smooth patient flow through the outpatient department is essential in the prevention of delays in outpatient visits (Margolis *et al*, 2003).

To achieve a high level of customer satisfaction, there must be a healthy relationship between the service provider and the recipient of service. For success, the primary care physician must establish a relationship with an individual (Danielsen *et al*, 2007). Study also found high level of customer satisfaction correlates well with good relationship between physician and this boost the loyalty of patients and is of importance and vital for satisfactions (Saeed *et al*, 2001). Care of patient is fundamentally based on human interaction and healing requires such relationship. Patients' are concerned more about how caring the service provider is rather than how much knowledge possessed (Perneger, 2004). This relationship builds trust in physician and is used by the patient to judge a physician's knowledge or skill (Friedman, 1993). A study done on customer satisfaction in Egypt found that 98.2% of patient trust doctor, 99% felt they were kind and friendly and this contributed immensely to the overall customer satisfaction (Anwer *et al*, 2003).

In Gaborone, Botswana, there are two Primary Health Care facilities that provide 24 hours services and services provided by these centers has been of great concern to both patients and the management due to the incessant complaints received from the former. This has generated a lot of public outcry and attracted media attention that has culminated on passing a vote of no confidence on the quality of service provided by the facilities. Thus the objective of the study is to assess patients' satisfaction and factor of importance on the service they receive at the primary health care facility in Botswana.

MATERIALS AND METHODS

Study design, and setting

The study was a quantitative descriptive cross-sectional study. The study was conducted at Extension 2 clinic, which is located in the heart of Gaborone (Capital city of Botswana). It is the busiest clinic in the metropolis. Its proximity to most offices makes it easily accessible to most workers during working and after hours.

Population and samples size

The target population for the study comprised all adult men and women (21 years or more) who visited health care facility for health services. Since out-patients department forms the entry point of patients to

the hospital, sampled population were interviewed mainly at the out-patients department.

Minimum sample size for the study was calculated using Epi-info software program. For sample size calculation, we considered the following information's: total number of patients in a month as 5000, confidence interval as 95%, and prevalence as 50% since it was unknown and worst acceptable as 45%. This gave us sample size of 357. We added an extra 10% for incomplete or unreliable answers, and to reduce sampling bias, giving final sample of 393 for analysis.

Sampling procedure

We used systematic random sampling techniques to select our study samples. The sample interval was calculated from the average number of patient per day, divided by the sample expected per day i.e. $200/10=20$. First patient at each day was selected using simple random sampling method. A randomly selected number between one, two or three was used, with a number representing each patient presenting on that particular day. For example if two was picked, the second patient to present in the OPD becomes the first sample and then every twentieth patient (i.e. 22nd, 42nd, 62nd, etc).

Inclusion and exclusion criteria

According to the rule of Botswana, anyone below the age of 21 years cannot consent. That is why we included all adult men and women who were 21 years old or above in the study. Below the age of 21 years and decisionally impaired persons were excluded from the study. We also excluded all emergencies to avoid delay in providing treatments.

Ethical consideration

Ethical clearance for the study was obtained from Medunsa Campus Research and Ethics Committee of the University of Limpopo (Medunsa Campus). Another approval was also sought from the Health Research Unit, Ministry of Health Botswana as well the management of the District Health Team. Informed written consent of participants was obtained. Confidentiality of participants was maintained at all times. To further maintain confidentiality no form of identifiers were in the questionnaires. Participation was voluntary and participants were informed that they can withdraw from the study at any stage of the interview if they so desire without any penalty.

Data Collection Instrument and data collection

A structured and semi-structured questionnaire was used to collect data from all study participants. The questionnaire consisted four sections. Section one included biographic and socio-demographic data,

sections two focused on utilization of the facility. The third section turn the search light on factors related to satisfaction from the use of various services at the facility and the last section asked about importance factor to the participants as well as the factor they are most displeas with and their suggestion for improvement of the facility. We asked the patients about their satisfaction level for each of the section of the facility they had to go through (nurses, consultation with doctors, reception and registration process, pharmacy, laboratory services, and X-ray services). For satisfaction level, each question was scored using a 5 point likert scale ranging from very satisfied (5) to undecided (1). Questionnaires were administered to all respondents in the study by a research assistant who was appointed and trained to facilitate the distribution and collection of questionnaires from all participants. The questionnaire was pre-tested using 30 patients in Block 9 clinic, the other twenty four hours facility in Gaborone to identify gaps and modify the questionnaire appropriately. The questionnaire was then pilot tested to a representative sample of adult patients attending another health facility in Botswana, and modified to ensure it answered the research questions.

Data analysis

Data were entered into a Microsoft Excel 2003 spreadsheet and imported to SPSS 17.0.1 for window version for analysis. The analysis results of participants' demographics and baseline outcome variables (both primary and secondary) were summarized using descriptive summary measures: expressed as mean (standard deviation) or median (minimum-maximum) for continuous variables and percent for categorical variables. Student's t-test was used to compare means between two groups. All statistical tests were performed using two-sided tests at the 0.05 level of significance. P-values were reported to three decimal places with values less than 0.001 reported as <0.001.

RESULTS

A total of 360 participants took part in the study however 400 questionnaires were distributed resulting 90% response rate. Table 1 shows the socio-demographic characteristics of the participants. We found majority (77%) of the respondents were below the age of 40 years. Of the participants surveyed in the study, about two-thirds (64%) were females, more than half (58.1%) being singles and employed (61.9%), and majority (76.6 %) had secondary or higher education. The various services offered in Extension II clinic are shown in Table 2. Majority (60%) reported using it

once in a while or rarely. Over three quarter of the participant (78.1%) came to the clinic for consultations either with the doctor or family nurse practitioner and about 7% came for sexual reproductive health services.

Level of satisfaction

Results showed that most participants were satisfied with level of performance of the pharmacy unit of the facility with mean ratings of 4.1 while the nurse got the least level of satisfaction with a mean rating of 3.4 in terms of services rendered as adjudged by the participants (Fig 1).

We found significant mean difference of satisfaction level regarding registration and reception between frequent and non-frequent users of the facility ($p= 0.012$). But mean satisfaction level for doctors, nurses, laboratory, pharmacy and x-ray services were not significantly different between frequent and non-frequent user of the health facility ($p>0.05$) (Table 3).

Table 1: Distribution of the socio-demographic characteristics of the participants

Characteristic	Frequency (n=360)	Percentage
Age (years)		
21 – 30	174	48.3
31 – 40	104	28.9
41 – 50	52	14.4
>50	30	8.3
Gender		
Male	131	36.4
Female	229	63.6
Total	360	100.0
Marital status		
Single	209	58.1
Married	129	35.8
Divorce	20	5.6
Widowed	2	.6
Employment status		
Unemployed	137	38.1
Employed	223	61.9
Education level		
No education	21	5.8
Primary	63	17.5
Secondary	142	39.4
Tertiary	134	37.2

Table 2: Utilization and types of services requested at the health services at the extension II clinic in Gaborone (n =360)

Variables	Frequency	Percentage
Utilization of the of the health services		
Rarely	121	34
Once in a while	95	26
Often	79	22
Very Often	65	18
Types of Health service requested		
Consultation	281	78.1
Lab	14	3.9
X-Ray	11	3.1
Immunization	25	6.9
Sexual reproductive health	25	6.9
Other	4	1.1

Factors of importance to participants

Participant rated all the listed factors almost of equal importance when it comes to factors they considered as important and contributory to their level of satisfaction in the facility. Interestingly 14.4% of participants still

think time is not important to them as factor for as long as they got what they wanted (Fig 2).

Ratings of displeasure of factors of importance

The participants were to signify how pleased they were with the factors of importance as it affects their use of Extension II clinic. More than a third (36.9%) was most pleased with information given to them. Their greatest displeasure was with the time spent at the facility as 63.9% of them were displeased (Table 4). Ten percent of participants still felt not satisfied by anything done within the facility.

Recommendation of facility to other user and advice on service improvement

An overwhelming majority (86.4%) of the participants still have a positive view of the clinic. They were still very affirmative in their recommendation of the clinic to other users. On how to improve the services provided in the facility participants were asked to give advice. Among the various advice given increase in manpower (36%), staff training (15%) stood out as areas that need to be significantly considered for improvement (Table 5).

Table 3: Comparison of the mean satisfaction level ratings of service providers between frequent and non-frequent service users

Service Provider	Utilisation	Participant Rating			
		Mean	Std. Deviation	Std. Error Mean	P-value (t-test)
Nurses	non-frequent user	3.50	1.53	0.10	0.297
	frequent user	3.33	1.52	0.13	
Doctors	non-frequent user	3.56	1.60	0.11	0.327
	frequent user	3.39	1.56	0.13	
Reception	non-frequent user	4.00	1.23	0.08	0.012*
	frequent user	3.63	1.51	0.13	
Pharmacy	non-frequent user	4.11	1.26	0.09	0.823
	frequent user	4.08	1.25	0.10	
Laboratory	non-frequent user	3.64	1.29	0.09	0.824
	frequent user	3.61	1.39	0.12	
X-ray	non-frequent user	3.57	1.30	0.09	0.360
	frequent user	3.45	1.23	0.10	

*P < 0.05 significant difference.

DISCUSSION

This study on factors associated with patient’s satisfaction in Extension II clinic Gaborone focused on determining the level of satisfaction of the patients’ that visited the clinic. Also established their ratings of quality of service received, factors of importance to them, where and who provided the best of service to them and how best to improve on the services provided in the facility.

Level of satisfaction

The study revealed that most of the participants gave the highest satisfied ratings to pharmacy followed by the reception and registration services, then doctors’ services respectively with the Mean ratings just slightly above average with Pharmacy and reception scoring 4.1 and 3.9 out of 5 respectively. This finding is similar to that of a study in Egypt which indicated that 52.2% and 81.2 % of participants were satisfied with level of

service received by the pharmacy in the two centers studied (Anwer *et al*, 2003).

Table 4: Ratings of displeasure of factors of importance (%).

Factors	Most Pleased	Least Pleased
Information provided	36.9	7.5
Services provided	30.8	7.8
Access to the clinic	11.9	3.9
Time spent	8.9	63.9
None	8.3	11.9
All	3.1	5

Table 5: Recommendation of facility to other users and advice on service improvement by the patients.

Variables	Percentage
Recommend to other user	
Yes	86.4
No	13.6
Advice given on improvement	
Monitoring and evaluation	1.7
Give attention	2.5
Respect patient	2.5
Keep it up	3.1
Improve services	3.6
Provide information	5.8
Re-organization	6.7
Time management	6.9
Patience	8.1
None	8.3
Staff training	15
Increase manpower	35.8

There is significance in the utilization of service by the participants with regards registration and reception, with mean ratings of 4.00 and 3.63 for frequent and non-frequent users respectively ($p= 0.012$). This

finding is not surprising as the non-frequent users rated their satisfaction level higher compared to the frequent users at their point of entry registration and reception. This can be explained on the basis that the former do not have sufficient contact with the provider. The non-association of facility use with satisfaction level can be related to the fact that primary health care clinics is the entry point into the health service delivery in Botswana which therefore means every one that needs care must come through the clinic even if unsatisfied with the performance.

Factors of importance

From the study findings, the participants were most pleased with provision of information. This agrees with a similar study in which it was found that provision of information is ranked higher by patients than by the physician in terms of factors contributory to satisfaction (Johansson *et al*, 2005, Roblin *et al*, 2004). Another study showed that patients’ value information highly as the study found patients’ satisfaction correlated strongly with the amount of information patients received from their physicians (Al-Qatari and Haran, 1999). Information ranked high from patient point of view but most physician still do not rank it high as found a study in which provision of information is ranked second in importance by patient but only sixth by physicians (Gustafson *et al*, 1996). Despite the high ranking of this by patients many physician still struggle to fully understand patient’s information needs. Study also found this disagreement in importance of patient information is still a concern if not well acknowledged by physician and it has a negative effect on clients’ perception of quality of care (Surjit, 2002).

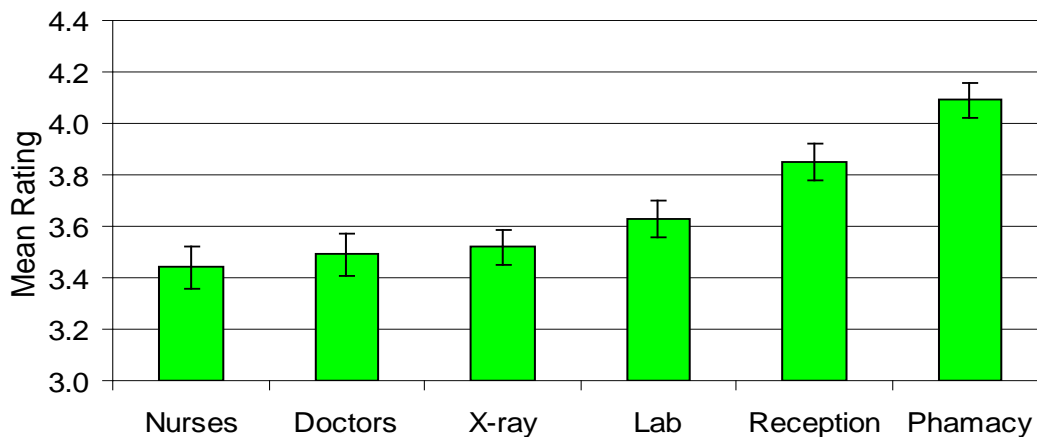


Figure 1: Mean ratings of the service providers by the patients (bars are std error of the mean)

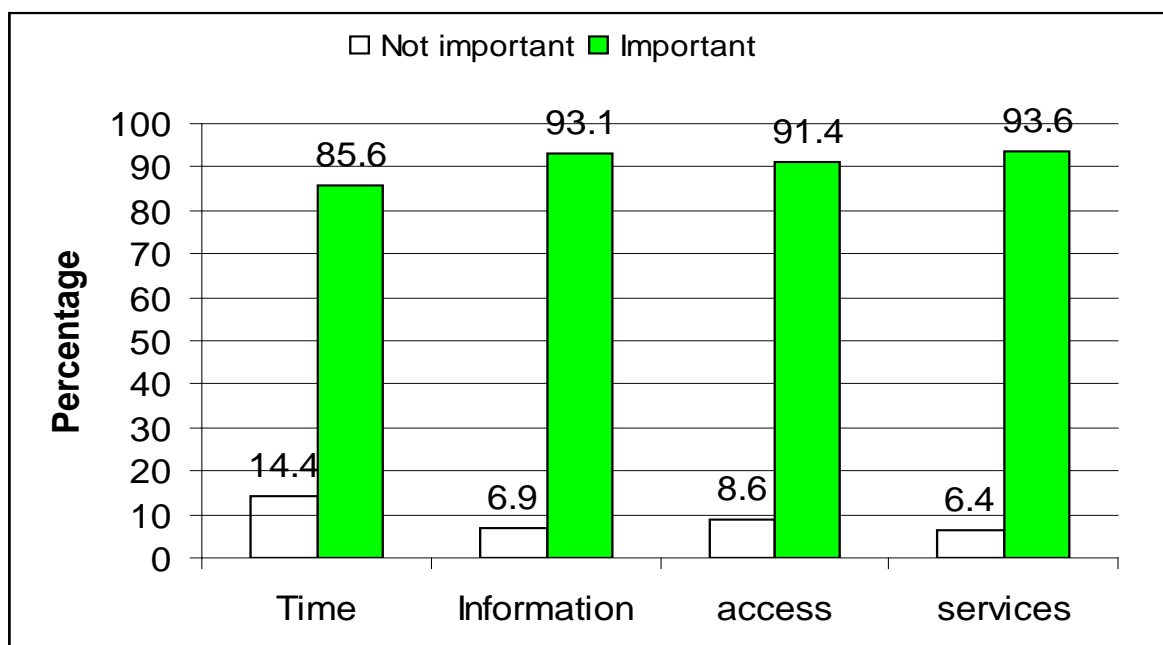


Figure 2: Rating of the most important factors by the patients (n=360)

Most participants (63.9%) were displeased by the time spent in facility. Their displeasure with waiting time in the facility is corroborated by several studies, which documented the relationship between waiting for service and overall satisfaction. Longer waiting times being associated with decreased patient satisfaction (Jan *et al*, 2004). Waiting time is a source of dissatisfaction for patients and remains a challenge to quality of care and services in the clinics (McCarthy *et al*, 2004). This is also in agreement with the findings in Egypt where waiting time contributes 47% of patients' dissatisfaction in an assessment of quality of care (AL-Faris *et al*, 1996). Waiting times are significant component of patient satisfaction as a study found that almost half of the study participants (46.7%) in his study were dissatisfied with the time spent in the facility (El-Awady, 1999). In a similar study by the Israel defense force done in a military hospital it was hypothesized that "time factor" (time spent at scheduling and waiting time in the clinic) is a major contributor to overall satisfaction and this factor was modified and proven that waiting times significantly correlated well with overall satisfaction (Bar-dayan *et al*, 2002).

Accessibility is one of the principles of health for all as stated in Alma Ata declaration on primary health care. From a study results show that ease of access to the facility is of importance to 91.4% participants. According to a survey in a community based study, people who have poor access to medical care had a

higher rate of hospitalization for common medical conditions (Al-Doghaither *et al*, 2000).

Limitations of the study

The sample was selected from only one health facility. The results of the study may not be generalised to other centres besides those at Gaborone, which may be providing services in a better or worst manner.

Conclusions

The results of this study have shown that the pharmacy unit of the clinic is doing a wonderful job in terms of providing quality services and thus enhancing the satisfaction of the patients in the clinic. The results indicated a need for interventions in terms of increased manpower, training of staffs with regard the areas which participants indicated as displeased with. These include time spent at the facility waiting to be seen, information provided to patient while in the clinic and the overall services provided in Extension II clinic Gaborone. Such interventions would promote good customer focused service delivery, which will boost the image of the facility and ensure increased facility utilization and aid in maintaining and improving the health of participants' thus promoting their well-being and the quality of life.

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