# Development of attributes relevant to satisfying ophthalmic care among health providers and adult patients at Harare Central Hospital, Zimbabwe: a mixed method study

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#### **ABSTRACT**

**Objective:** To develop attributes relevant to satisfying ophthalmic care among health providers and patients.

Design: Mixed-method study.

**Settings:** Harare Central Hospital Eye Unit, Zimbabwe.

**Subjects:** A convenience sample of 30 eligible adult patients who had come for eye care at the outpatients' department and 18 health care providers.

**Methods:** This study was conducted as the first phase of a two-phase broader study. We held five focus groups with patients and doctors separately and twelve in-depth key informant interviews with nurses. Participants were asked to identify attributes of the care process they regarded as leading to satisfying eye care. We recorded full details and used a tallying method to record frequencies. We then ranked and identified key attributes, with the top three attributes regarded as the most important.

**Results:** The study developed nine attributes from health providers and seven attributes from health users. The most important attributes for health providers were the availability of drugs, good staff attitude and the availability of equipment. Patients prioritised good staff attitude, adequate information and the availability of doctors. All the attributes mentioned by health users were mentioned by health providers but ranked differently. **Conclusion:** Both clinical and nonclinical attributes of care were considered by health providers and health users. Overall, attributes that were important to patients were linked to interpersonal relations (attitudes, communication, availability of, and access to doctors). Health providers' preferences were mostly clinical (drugs and equipment). Acknowledging these differences in perspectives may help policymakers when designing frameworks for quality health services.

**Key words:** Patient-centred care, Attributes, Satisfaction

## **INTRODUCTION**

Patient satisfaction is a crucial component of any health delivery system. It has become a measure of clinical outcomes and an indicator of the quality of health services<sup>1</sup>. Perceptions of satisfaction are derived from an appraisal of the care process and clinical outcomes. Satisfied patients have been reported have better clinical outcomes<sup>2</sup>. Furthermore, unfavourable outcomes may be accepted by satisfied patients, reducing the likelihood of litigation. Health providers who serve satisfied patients report greater job satisfaction and have a lower chance of burnout<sup>3</sup>. This healthy balance results in continuous uptake of health services with resultant economic benefit to the health funders4. There is therefore an increase in health care satisfaction surveys, with countries such as Germany making patient satisfaction surveys mandatory<sup>1,5,6</sup>.

Internationally, there is an unprecedented move away from physician (health provider)-centred care

towards the concept of patient-centred care, in an effort to meet the demands of dynamic health systems<sup>7</sup>. Physician-centred care focuses on a disease, its investigation and the objective outcomes8. Patientcentred care is defined as providing care that is respectful of, and responsive to, individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions<sup>7</sup>. Patient-centred care is associated with better patient outcomes<sup>9</sup>. In patient-centred care, health providers and patients share decision making. As a result, the care process focuses not only on clinical measures but also considers other aspects of wellbeing such as emotions, spirituality, mentality and financial status. As a result patient-centred care is associated with better clinical and non-clinical outcomes9. Hospitals practising patient-centred care have been found to have higher patient satisfaction levels<sup>4</sup>. Measuring and recording patient satisfaction can give an insight into the extent of patient-centred care offered by a health service provider.

satisfaction Determinants of patients' not universal, and tend to vary across nations and individuals<sup>5,10,11</sup>. A study in Germany among hospitals, noted that the greatest predictor of satisfaction was the treatment outcome followed by nurse kindness<sup>5</sup>. In Tanzania, the greatest predictors of health facility preference were health provider-related factors<sup>10</sup>. A systematic review on determinants of patient satisfaction found inconsistent relationships between patient satisfaction and patient-related factors4 whereas a satisfaction survey in public clinics in Zimbabwe concluded that there was a relationship between client satisfaction and services delivery11. The authors did not characterise the determinants of patient satisfaction and recommended further research on patient satisfaction and perceptions.

Ophthalmic care involves the provision of treatment (for eye diseases, refractive problems, and functional disorders), prevention (mainly involved with screening), and advice (public health ophthalmology). According to the national eye strategy of Zimbabwe (2014-2018), eye health diseases and conditions are among the top five reasons for outpatient visits. They are a major cause of morbidity contributing to poverty at individual, family, community and national levels. The Zimbabwe national eye strategy aims to promote quality in eye care<sup>12</sup>. Integrating patient-centred eye care could improve the quality of ophthalmic care in Zimbabwe.

To date, there has been no published literature on patient satisfaction in ophthalmic care in Zimbabwe. This study, therefore, describes and compares local perspectives on satisfying ophthalmic care in both the health providers and the health service users. Our findings will aid in understanding local patterns and will be used to design a local framework to improve satisfaction with patient-centred eye care. The information will also add to the limited knowledge of the determinants of satisfying ophthalmic care in Zimbabwe.

#### **MATERIALS AND METHODS**

This study was the first phase of a two-phase study. The main objective was to identify attributes contributing to satisfying ophthalmic care in Zimbabwe. These attributes were then used to design a questionnaire for the second phase. The study was done from July to December 2018 in an ophthalmic setting at Harare Central Hospital Eye Unit, a tertiary referral unit in Harare, Zimbabwe. Zimbabwe is a low income country in southern Africa. Adult patient participants were men and women of mixed ages attending the outpatients department for eye care. Health providers were nurses and doctors not exclusively ophthalmic. Patients and doctors who were eager and willing to share their ideas were conveniently recruited for separate focus group discussions. Twelve nurses were recruited for in-depth

key informant interviews as it was not feasible to have a group discussion due to their work commitments. There were no financial incentives. The 30-minute focus group discussions were held in the outpatients' department eye unit, with six patients or doctors in each. A trained facilitator (MK, the main researcher) led the focus group discussions and in-depth key interviews. A trained assistant researcher assisted with focus group control and data capture. Participants were asked which attributes of the care process were important in leading to satisfying eye care. Ideas mentioned were written down in detail and frequencies were noted using a tallying method. Focus groups for patients and key informant interviews were held until saturation of data was reached. For example, the frequency of key words that formed the basis of establishing attributes in the focus group discussions and in-depth interviews guided us in determining the level of saturation and cut-off. We undertook a simple data analysis to identify and rank attributes. The top three ranked attributes were considered to be the most important.

Ethical approval was obtained from the Joint Research Ethics Committee (JREC) for the University of Zimbabwe College of Health Sciences and Parirenyatwa Group of Hospitals, Medical Research Council of Zimbabwe (MRCZ) and Harare Central Hospital.

#### **RESULTS**

In total, we held five focus group discussions and 12 key informant interviews. Four of the focus groups were among patients and one was held with doctors. In total, nine attributes were identified in health providers' groups and seven in patients' groups. All seven attributes mentioned by patients were also mentioned by health providers. Emerging attributes are listed in descending order of popularity as shown in Table 1.

**Table 1:** Attributes relevant to satisfying ophthalmic care identified by patients and health providers in focus group discussions and interviews

Patients' attributes

Health providers' attributes

(in descending order)	(in descending order)
1. Availability of drugs	1. Staff attitude (good)
<ul><li>2. Staff attitude (good)</li><li>3. Availability of equipment</li></ul>	<ul><li>2. Adequate information</li><li>3. Availability of doctors</li></ul>
4. Short waiting time	(more clinics)
5. Enough space	4. Availability of drugs
6. Adequate information	5. Enough space
7. Availability of doctor	6. Short waiting time
(more clinics)	7. Clean environment
8. Clean environment	
9. Good food	

Health providers regarded the availability of drugs as the most important attribute, followed by good staff attitude and the availability of equipment. Patients prioritised good staff attitude, followed by adequate information and the availability of sufficient doctors/clinics. Both groups listed enough space as important, but this was less important for patients than health providers.

#### **DISCUSSION**

In exploring the perceptions of patient satisfaction with eye care, we developed nine attributes for health providers and seven attributes for health users. The most important for health providers were the availability of drugs, good staff attitude and availability of equipment. Patients prioritised good staff attitude, adequate information and availability of doctors. All attributes mentioned by health users were also mentioned by health providers.

For the health providers, availability of drugs was ranked highest. With current resource constraints in local hospitals, patients sometimes have to outsource prescribed drugs. Providing patient care in the absence of appropriate prescribed medicines can be a major frustration to the health provider and patients. The health provider may, therefore, perceive the unavailability of drugs as a cause of patient dissatisfaction. Consistent with physician-centred care, the health provider may also be more likely than a patient to focus on the disease process and its treatment with medical/clinical modalities. There may therefore be less focus on nonclinical components of care such as interpersonal relationships<sup>13</sup>. This focus on disease, as opposed to the diseased person, has been highlighted since time immemorial. It has been a bone of contention among medical practitioners who are encouraging others to consider nonscientific elements of patient care for better outcomes 8,14. Our study adds to this body of knowledge.

In contrast to the health providers, patients regarded staff attitude as the most important factor contributing to their satisfaction with eye care services.

It is plausible that patients prioritise staff attitudes as these are easier to evaluate and judge than technical components of care<sup>15,16</sup>. For example, in Tanzania where a discrete choice experiment of preferences for delivery care among 3,003 Tanzanian women was performed, the greatest predictor of health facility preference by patients was kind treatment by doctors<sup>10</sup>.

Similarly, in Bangladesh where client satisfaction and quality of health care in rural Bangladesh was studied, the most powerful predictor for client satisfaction was provider behaviour, even in the case of short consultation times (averaging 2 minutes 22 seconds) and long waiting times <sup>17</sup>. These studies found that technical competence did not strongly predict patient satisfaction. In contrast, a preference study in Zambia found that the technical quality of care, as represented by the thoroughness of the examination, was the most important quality

attribute, followed by staff attitudes<sup>18</sup>. There was no mention of clinical competence in our study. Training health personnel to improve interpersonal relationships with patients at institutional levels may help increase patient satisfaction.

Patients regarded adequate information as far more important to their satisfaction than health providers did. Our study supports findings from others which have reported an unmet demand for adequate patient information in Europe<sup>19</sup>. In a satisfaction study in Nigeria, only 37.2% of participants received sufficient information during the course of their treatment<sup>2</sup>. Other studies have reported that health professionals undervalue the need for communication with patients<sup>20</sup>, despite the fact that the Patient Charter includes patients' right to adequate information<sup>21</sup>. Drawing patients into the decision-making process encourages them to be partners in their own care. This shared understanding of potential problems can help the health provider and the patient accept less favourable clinical outcomes<sup>22</sup>. It is possible that health providers underestimate the need for comprehensive information due to the paternalism often practised in health care in some less developed nations<sup>20</sup>. With the international shift to patient-centred care, patients require adequate information if they are to be satisfied<sup>2</sup>.

Availability of equipment was an attribute which was only mentioned by health providers, who ranked it third. This makes intuitive sense, as the availability of equipment impacts on the ease of doing a task and may result in job satisfaction. In contrast, it is likely that patients do not appreciate the importance of available equipment and may also reflect their perception that the health providers are competent<sup>20</sup>. Indeed, such a perception might also explain why patients ranked the availability of doctors third and health providers ranked it seventh. In developing countries, patients are likely to perceive doctors as knowing everything and might therefore not consider the need for clinical components such as medical equipment<sup>15, 16</sup>.

Notably, even in more developed countries such as Croatia, patients were comfortable losing their autonomy to a physician because of the perceived competency of the physician<sup>20</sup>. The availability of sufficient space was ranked low by providers and patients. The relative unimportance of space and privacy could be explained by the fact that ophthalmic consultations are not privacy sensitive while disciplines such as obstetrics demand privacy. Good food was another attribute only mentioned by health providers. This supports findings from a preference study in Zambia, in which 'hotel' service had no bearing on patients' preference for a health service<sup>18</sup>.

Neither patient nor health provider regarded the affordability of health services as a priority. However, affordability may have been indirectly addressed by patients, who prioritised the need for available drugs.

When drugs are not available in a hospital, they have to be outsourced, becoming an added cost that may have a negative financial bearing on lower socioeconomic groups which are a majority in a developing country such as Zimbabwe<sup>18</sup>. A South African study reported that people were more likely to seek public sector health services if they received the medicine they needed<sup>23</sup>.

Perspectives of health users and health providers differed both in the attributes identified and their ranking. Most studies have determined the perspectives of health users, but there is relatively little literature on the perspectives of health providers. Health providerrelated determinants which include technical care, interpersonal care, physical environment, access (accessibility, availability, finances), organisational characteristics, continuity of care, and outcomes of care are the pillars of patient-centred care<sup>4,9</sup>. The perspectives of health providers and health user may vary as a result of differences in sociodemographics<sup>24</sup>. The health provider may not comprehend impairment through the patients' view, and may thus fail to respond appropriately to the patients' needs and preferences, resulting in dissatisfaction with health care<sup>25</sup>. One of the aims of the study was to increase our understanding of local perceptions of health user and health provider in ophthalmology, which are known to differ across contexts<sup>24</sup> and affect the care process<sup>17</sup>. Acknowledging different perspectives may help policymakers when designing frameworks for quality health services.

This study was strengthened by having separate focus group discussions of patients and doctors, which allowed for free expression of opinions. A weakness of the study was that fewer focus groups were held for health providers than patients. Nurses had in-depth interviews instead of focus group discussions. These disparities can be a source of bias in information gathered. However the authors believe that meaningful conclusions can still be made from the gathered information. The second part of the study will use a standard questionnaire from the gathered information and will engage ophthalmic health providers as opposed to any health practitioner.

## **CONCLUSION**

Health providers and health users consider both clinical and nonclinical attributes in assessing satisfaction with eye care services. Patients' prioritised interpersonal relations (attitudes, communication and availability and accessibility to doctors). Health providers' preferences were mostly clinical (drugs and equipment). Acknowledging these differences in perspectives may help policymakers when designing frameworks for quality health services.

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## **REFERENCES**

- 1. Ziaei H, Katibeh M, Eskandari A, Mirzadeh M, *et al.* Determinants of patient satisfaction with ophthalmic services. *BMC Res Notes*. 2011; **4**:7.
- 2. Ofovwe CE, Ofili AN. Indices of patient satisfaction in an African population. *Public Health*. 2005; **119**(7):582–586.
- 3. McHugh MD, Kutney-Lee A, Cimiotti JP, Jeannie P, *et al.* Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Aff (Millwood)*. 2011; **30**(2):202–210.
- 4. Batbaatar E, Dorjdagva J, Luvsannyam A, Savino MM, *et al.* Determinants of patient satisfaction: a systematic review. *Perspect Public Health*. 2017;**137**(2):89–101.
- 5. Schoenfelder T, Klewer J, Kugler J. Determinants of patient satisfaction: a study among 39 hospitals in an in-patient setting in Germany. *Intern J Qual Health Care*. 2011; **23**(5):503-509.
- 6. Barr JK, Boni CE, Kochurka KA, Nolan KA, *et al.* Public reporting of hospital patient satisfaction: The Rhode Island experience. *Health Care Financ Rev.* 2002; **23**(4):51–70.
- 7. Quality Chasm 2001 report brief. Crossing the Quality Chasm. http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2001/Crossing-the-Quality-/Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf(2001, accessed Mar 9 2020).
- 8. Mead N, Bower P. Patient-centredness: a conceptual framework and review of the empirical literature. *Soc Sci Med.* 2000; **51**(7):1087–1110.
- 9. NEJM catalyst. What is patient-centered care?]. https://catalyst.nejm.org/doi/full/10.1056/CAT.17.0559 (2017, accessed 16 Mar 2020.

- 10. Larson E, Vail D, Mbaruku GM, Kimweri A, et al. Moving toward patient-centered care in Africa: a discrete choice experiment of preferences for delivery care among 3,003 Tanzanian women. PloS One. 2015; 10(8):e0135621.
- 11. Jagero N. Client satisfaction and health services: The case off Mutare, Zimbabwe. https://www.academia.edu/14640365/Client\_Satisfaction\_and\_Health\_Services\_The\_Case\_off\_Mutare\_Zimbabwe (2015, accessed 25 Mar 2020).
- 12. Ministry of Health Zimbabwe. National eye strategy ZIMBABWE 2014- 2018. https://iapblive.blob.core.windows.net/resources/120 National-Eye-Health-Strategy ZIMBABWE 2014-2018. pdf?width&height=150.(accessed 23 Jan 2019)
- 13. Green AR, Carrillo JE, Betancourt JR. Why the disease-based model of medicine fails our patients. *West J Med.* 2002; **176**(2):141–143.
- 14. Peabody FW. The care of the patient. *JAMA*. 2015; **313**(18):1868–68.
- 15. Fitzpatrick R. Surveys of patients' satisfaction: Important general considerations. *Br Med J.* 1991; **302**(6781):887–889.
- Health systems in Africa. https://www.afro.who. int/sites/default/files/2017-06/english---health\_ systems\_in\_africa---2012.pd .(accessed 5 June 2020).
- 17. Mendoza Aldana J, Piechulek H, al-Sabir, A. Client satisfaction and quality of health care in rural Bangladesh. *Bull World Health Organ*. 2001; **79**(6):512–517.

- 18. Hanson K, McPake B, Nakamba P, Archard L. Preferences for hospital quality in Zambia: results from a discrete choice experiment. *Health Econ.* 2005; **14**(7):687–701.
- 19. Bruster S, Jarman B, Bosanquet N, Weston D. National survey of hospital patients. *Br Med J.* 1994; **309**(6968):1542–46.
- 20. Murgic L, Hébert PC, Sovic S, Pavlekovic G. Paternalism and autonomy: views of patients and providers in a transitional (post-communist) country. *BMC Med Ethics*. 2015; **29**:16.
- 21. Patients' Charter. https://www3.ha.org.hk/pwh/content/comm/patientchartermultimedia.html (accessed Feb 1 2020).
- 22. Stiggelbout A, Van der weijden T, Wit M, Frosch D. Shared decision making: Really putting patients at the centre of healthcare. *Br Med J.* 2012; **344**:256.
- 23. Honda A, Ryan M, Van Niekerk R. Improving the public health sector in South Africa: eliciting public preferences using a discrete choice experiment. *Health Policy Plan.* 2015; **30**(5):600–611.
- 24. Montgomery AA, Fahey T. How do patients' treatment preferences compare with those of clinicians? *Qual Saf Health Care*. 2001; **10**(suppl 1): i39–i43.
- 25. McKenna SP. Measuring patient-reported outcomes: moving beyond misplaced common sense to hard science. *BMC Med.* 2011; **9**(1):86.