https://doi.org/10.47811/bsj.0022060417

SHORT COMMUNICATION

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Assessment of patient satisfaction on Traditional Medicine Services provided at three selected hospitals in Bhutan: a cross-sectional study

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ABSTRACT

Background: Patient satisfaction is one of the components in the assessment of quality of health care services. This study describes the level of patient satisfaction regarding Traditional Medicine services provided at the National Traditional Medicine Hospital and the Traditional Medicine Units at the two Regional Referral Hospitals in Bhutan in 2019.

Methods: This was a cross-sectional study among patients who had prior record of having availed Traditional Medicine services. This was a convenience sampling of patients. Data were collected using a questionnaire that were rated on a five-point Likert scale.

Results: Data from 398 participants were analyzed. The mean age of the participants was 41.7 (±16.1) years. The overall average satisfaction score was 80.9%. For the physician attributes, the mean satisfaction scores were 4.1 (±0.6) for Reliability, 4.2 (±0.6) for Responsiveness/Empathy, and 4.1 (±0.6) for Assurance. For service delivery processes, the mean satisfaction scores were 4.0 (±0.6) for Reception/Registration, 4.1 (±0.5) for physical environment, 3.7 (±0.6) for availability/access to services, and 4.1 (±0.6) for Dispensary services.

Conclusion: The satisfaction among the participants was high for both physician attributes and service delivery processes. The findings from this study would help strengthen the delivery of patient-centred Traditional Medicine services in Bhutan.

Keywords: Complementary Therapy; Empathy; Health Attitudes; Patient Care; Patient Perception; Physician Engagement

INTRODUCTION

Patient satisfaction is one of the key components in assessing the quality of healthcare services. For hospital administrations, it is a useful tool for assessing and responding to organizational and operational issues [1]. Interpersonal or social skills of health workers, medical/nursing care, technical competencies, infrastructure and amenities, accommodations, environment, service accessibility, continuity of care, and the outcome of hospital visits constitute the primary dimensions influencing patient satisfaction in healthcare [2]. In addition, compassionate care-giving processes, effective communication skills, reliable

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services, responsiveness to patients' needs, technical competence of health workers, and treatment efficacy are common dimensions assessed in patient satisfaction [2-4].

Within Bhutan's healthcare context, research has identified robust infrastructure, marital status, occupation, level of education, service accessibility, and communication skills as major contributors to patient satisfaction [5-7]. Studies consistently demonstrate moderate to high satisfaction rates among patients throughout the country [7, 8].

From a healthcare system perspective, evaluating patient satisfaction represents a vital metric for enhancing the quality of healthcare services delivered. Healthcare institutions in developed nations increasingly acknowledge patient satisfaction as a fundamental ingredient of long-term organizational success [3]. However, patient satisfaction assessment in the context of Traditional Medicine services remains limited. This study describes patient satisfaction among those who availed Traditional Medicine services at the National Traditional Medicine Hospital and Traditional Medicine Units located within two Regional Referral Hospitals in Bhutan.

METHODS

Study design

This was a cross-sectional survey conducted across three healthcare facilities in Bhutan in 2019.

Setting

The study was carried out at three selected healthcare facilities: the National Traditional Medicine Hospital in Thimphu, operating as a standalone 10-bedded facility, and the Traditional Medicine Units co-located within two larger hospitals, the 150-bedded Central Regional Referral Hospital in Gelephu and the 150-bedded Eastern Regional Referral Hospital in Mongar. In 2019, these facilities recorded the following patient visits: 33,876 patients at the National Traditional Medicine Hospital, 3,615 patients at the Traditional Medicine Unit in the Central Regional Referral Hospital, and 2,764 patients at the Traditional Medicine Unit in the Eastern Regional Referral Hospital [9].

Study Population

Based on the monthly patient load seen at the study sites, a total of 400 participants were selected from these three sites. We sampled a proportion of 60% from the National Traditional Medicine Hospital and a proportion of 20% each from the Central Regional Referral Hospital and the Eastern Regional Referral Hospital. This was a convenience sampling. We included participants aged 15 – 85 years who had a prior record of availing themselves of Traditional Medicine services.

Data Collection

The data were collected using a paper-based questionnaire in English or Dzongkha. The study questionnaire was self-administered among literate participants and interviewer-administered among those who could not read or write. The questionnaire comprised 47 closed-ended questions where responses were recorded on a five-point Likert scale (1=strongly disagree to 5=strongly agree). The instrument was structured around the RATER framework (Reliability, Assurance, Tangibles, Empathy, and Responsiveness) with themes related to Traditional Medicine services [10].

Data entry and analyisis

Data collected were entered in and analyzed using EpiData (version 3.1 for entry and version 2.2.2.183 for analysis, EpiData Association, Odense, Denmark). Categorical variables are presented as frequencies and percentages. Continuous variables are presented as mean and standard deviation. The responses on patient satisfaction were rated on a 5-point Likert scale: 1 (strongly disagree), 2 (disagree), 3 (uncertain), 4 (agree), and 5 (strongly agree), where higher scores indicate greater satisfaction. The overall satisfaction score was calculated using the simple arithmetic mean method. The mean of each statement was calculated and converted to percentages using a ratio formula.

Ethics Approval

Ethics approval was obtained from the Research Ethics Board of Bhutan (REBH/Approval/2018/028 dated 26/06/2018). Administrative clearance was obtained from the Policy and Planning Division, the Ministry of Health. Site clearance was sought from the respective Medical Superintendents of the three hospitals. Informed consent was obtained from all the participants.

RESULTS

A total of 398 participants responded to this study:

221(55.6 %) from the National Traditional Medicine Hospital, 90 (22.6%) from the Central Regional Referral Hospital, and 87 (21.8%) from the Eastern Regional Referral Hospital. The average age of participants was 41.7 (±16.1) years. The basic sociodemographic characteristics of the patients are shown in Table 1.

Table 1. Demographic characteristics of patients who were interviewed for patient satisfaction regarding Traditional Medicine services at the National Traditional Medicine Hospital, Central Regional Referral Hospital, and Eastern Regional Referral Hospital, Bhutan, 2019

Characteristics	n	(%)
Sex		
Female	178	44.7
Male	220	55.3
Occupation		
Employed	143	35.9
Self employed	148	37.2
Unemployed	60	15.1
Others	47	11.8
Marital Status		
Married	274	68.8
Unmarried	99	24.9
Widow/divorced	25	6.3
Education Level		
No formal education	139	(25.98)
Primary education	103	(19.25)
Secondary education	65	(12.15)
Tertiary education	20	(3.74)
Monastic education	10	(1.87)

Patient satisfaction

Table 2 shows the assessment of patient satisfaction across three domains: reliability, responsiveness/empathy, and assurance. The mean satisfaction scores for physician attributes are: 4.1 (±0.6) for Reliability, 4.2 (±0.6) for Responsiveness/Empathy, and 4.1 (±0.6) for Assurance. The lowest mean satisfaction score was for the number of *Drungtsho/Menpa* available to care patients (Table 2).

As shown in Table 3, the mean satisfaction scores are 3.7 (±0.6) for service benefits, availability, and accessibility, 4.1 (±0.5) for physical environment, 4.0 (±0.6) for reception/registration services, and 4.1 (±0.6) for dispensary services.

A patient satisfaction survey revealed high satisfaction rates across healthcare service dimensions, with an overall score of 80.9%. Positive response rates ranged from 75.6% to 94%, with a mean satisfaction score of 4.1 ± 0.6, indicating strong patient confidence in service quality. The service benefits and accessibility showed lower satisfaction at 75.6% (mean 3.7 ±0.6)

DISCUSSION

The study reports high levels of patient satisfaction among those interviewed at the selected hospitals. The attributes of Traditional Medicine practitioners, such as reliability, responsiveness/empathy, and assurance, the overall satisfaction ratings were high. The attributes of healthcare workers that contribute to patient satisfaction include providing a positive emotional perception and experience through effective communication and interpersonal interaction [11]. The findings in our study are similar to another survey that identified reliability and responsiveness as the key contributors to patient satisfaction [12].

The overall findings of this study are in line with the philosophical framework of Traditional Medicine, which is guided by six human perfections and four immeasurable qualities (*Tsey-Mey-Zhi*) [13]. These findings corroborate existing research demonstrating that compassionate medical professionals create an environment of emotional security among patients [14].

Overall service benefits, availability, and access showed comparatively lower satisfaction levels consistent with the previous studies that identified inadequate infrastructure across Traditional Medicine Units [5] and a low satisfaction score in accessibility and convenience in the allopathic setting, conducted at the regional level [7]. The findings emphasize the expansion of human resources and infrastructure to enhance service delivery.

The findings also demonstrate favourable perceptions of *Sowa Rigpa* among patients interviewed [15], potentially enhanced by safer profile and fewer side effects of Traditional Medicine [6]. However, this study may not be fully representative of the whole country as it covers only the three major referral hospitals. Nevertheless, the results of the study are expected to serve as useful feedback for the Traditional Medicine service providers, enabling them to enhance the quality of healthcare services. To address the gaps, the study recommends improving human resources and infrastructure, and developing policies based on patient feedback. The in-depth research is required in this area with a larger sample size and

Table 2. Patient satisfaction with outpatient Traditional Medicine services at the National Traditional Medicine Hospital, Central Regional Referral Hospital, and Eastern Regional Referral Hospital, Bhutan, 2019

Patient satisfaction with outpatient Traditional Medicine services	Disagree n (%)	Neutral n (%)	Agree n (%)	Mean scores (±SD)
Reliability				
The *Drungtshos/Menpas* keep the appointments given to us.	13 (3.3)	50 (12.6)	335 (84.1)	4.1 (±0.8)
Physical examinations and checkups are done thoroughly and completely	13 (3.3)	33 (8.3)	352 (88.4)	4.2 (±0.8)
I trust the way they diagnose the disease.	9 (2.3)	41 (10.3)	348 (87.4)	4.1 (±0.7)
They give us appropriate medication/treatment.	10 (2.5)	26 (6.5)	362 (91)	4.2 (±0.7)
They are always available for consultation during office hours.	22 (5.5)	55 (13.8)	321 (80.7)	4.0 (±0.8)
They give adequate counseling/ advice.	17 (4)	34 (9)	346 (87)	4.1 (±0.8)
Responsiveness and Empathy				
I find the *Drungtshos/Menpas* very friendly and approachable.	16 (4)	21 (5.3)	361 (90.7)	4.2 (±0.8)
They listen to our problems carefully and patiently.	13 (3.3)	24 (6)	361 (90.7)	4.2 (±0.7)
They make us feel comfortable to express our problems.	9 (2.3)	21 (5.3)	368 (92.4)	4.2 (±0.7)
They spend enough time while attending to my problems.	12 (3)	26 (6.5)	360 (90.5)	4.2 (±0.7)
They make us feel loved and cared for as a patient.	7 (1.8)	30 (7.5)	361 (90.7)	4.2 (±0.7)
They offer prompt services	9 (2.3)	38 (9.5)	351 (88.2)	4.1 (±0.7)
They are polite, comforting, and encouraging to us when faced with problems.	8 (2)	23 (5.8)	367 (92.2)	4.2 (±0.7)
I think *Drungtshos/Menpas* are compassionate towards their patients.	11 (2.8)	34 (8.6)	352 (88.7)	4.2 (±0.7)
Assurance				
Drungtshos/Menpas provide services equally without favoritism.	14 (3.5)	59 (14.8)	325 (81.7)	4.1 (±0.8)
They adhere to the confidentiality of my medical information.	7 (1.8)	68 (17.0)	323 (81.2)	4.0 (±0.7)
There are adequate *Drungtshos/Menpas* to take care of the patients.	37 (9.3)	61 (15.3)	300 (75.4)	3.8 (±0.9)
They treat me with respect and dignity.	12 (3)	34 (9)	352 (88.0)	4.1 (±0.7)
They have good knowledge to answer my medical enquiry.	11 (2.8)	39 (9.8)	348 (87.4)	4.1 (±0.7)
I can understand their explanation easily.	9 (2.3)	28 (7)	361 (90.7)	4.2 (±0.7)
They are well-trained and skillful.	7 (1.8)	38 (9.5)	353 (88.7)	4.2 (±0.7)

broader geographic coverage. This will help understand patient satisfaction with this aspect of TM services nationwide.

CONCLUSION

The overall patient satisfaction scores were high among those interviewed at the selected hospitals. While this demonstrates a favourable outlook on Traditional Medicine services, patient-feedback may be taken into account in delivering patient-centred services.

Declarations

Ethics approval and consent to participate

Ethics approval was obtained from the Research Ethics Board of Bhutan (REBH/Approval/2018/028 dated 26/06/2018). Administrative clearance was obtained from the Policy and Planning Division, the Ministry of Health. Site clearance was sought from the respective Medical Superintendents of the three hospitals. Informed consent was obtained from all the participants.

Consent for publication

Not applicable

Competing interests

The authors declare no competing interests.

Funding

There was no funding for this article.

Availability of data materials

The dataset is available from the corresponding author after approval from the Ministry of Health, Royal Government of Bhutan.

Table 3. Patient satisfaction across service delivery processes at the National Traditional Medicine Hospital, Central Regional Referral Hospital, and Eastern Regional Referral Hospital, Bhutan, 2019

Domains of assessment	Disagree n (%)	Neutral n (%)	Agree n (%)	Mean scores (±SD)
Service benefits, availability, and access				
All Traditional Medicine therapies are available.	51 (12.8)	119 (29.9)	228 (57.3)	3.5 (±0.9)
Traditional Medicine is effective in curing diseases.	13 (3.3)	79 (19.8)	306 (76.9)	3.9 (±0.7)
I think Traditional Medicine has no side effects	13 (3.3)	117 (29.4)	268 (67.3)	3.8 (±0.8)
Traditional Medicine takes a longer duration to cure the diseases.	16 (4)	96 (24.1)	286 (71.9)	3.9 (±0.8)
I think Traditional Medicine benefits elderly people more.	75 (18.8)	109 (27.4)	214 (53.8)	3.4 (±1.0)
Traditional Medicine medicines are always available whenever required	45 (11.3)	83 (20.9)	270 (67.8)	3.7 (±0.9)
The Traditional Medicine unit has enough human resources.	49 (12.3)	115 (28.9)	234 (58.8)	3.6 (±0.9)
I will recommend Traditional Medicine to other people for their treatment	9 (2.3)	36 (9.0)	353 (88.7)	4.2 (±0.8)
Overall physical environment				
The Traditional Medicine hospital is maintained neat and clean.	8 (2)	15 (3.8)	375 (94.2)	4.2 (±0.7)
Toilets/ Latrines are clean.	27 (6.8)	58 (14.6)	313 (78.6)	3.9 (±0.8)
The medical chambers appear neat and clean.	4 (1)	18 (4.5)	376 (94.5)	4.2 (±0.6)
Poster and advocacy charts are well-maintained.	19 (4.8)	50 (12.5)	329 (82.7)	4.0 (±0.8)
The dispensary room appears neat and clean.	4 (1)	24 (6)	370 (93)	4.2 (±0.6)
Therapy rooms and equipment are clean.	9 (2.3)	34 (8.5)	355 (89.2)	4.1 (±0.7)
Waste bins are properly maintained.	13 (3.3)	59 (14.8)	326 (81.9)	4.0 (±0.8)
Dispensary				
Dispensary staff have provided me with prescribed drugs.	13 (3.3)	33 (8.3)	352 (88.4)	4.2 (±0.7)
All prescribed drugs are always available	45 (11.3)	84 (21.1)	269 (67.6)	3.7 (±1.0)
Staff are always on time	17 (4.3)	68 (17.1)	313 (78.6)	4.0 (±0.8)
I find the therapy care providers friendly and approachable.	17 (4.3)	37 (9.3)	344 (86.4)	4.1 (±0.8)
They attend to us willingly.	14 (3.5)	44 (11.1)	340 (85.4)	4.0 (±0.8)
They offer prompt services without making us wait too long.	21 (5.3)	60 (15.1)	317 (79.6)	4.0 (±0.8)
They listen to us patiently.	12 (3)	38 (9.6)	348 (87.4)	4.1 (±0.7)
Dispensary Staff services equally without favoritism.	12 (3)	45 (11.3)	341 (85.7)	4.1 (±0.7)
They adhere to the confidentiality of my information	4 (1)	44 (11.1)	350 (87.9)	4.1 (±0.6)
They treat me with respect and dignity.	9 (2.2)	46 (11.6)	343 (86.2)	4.1 (±0.7)
They have good knowledge to answer my enquiry about medicines.	8 (2)	39 (9.8)	351 (88.2)	4.1 (±0.7)
They provide clear information about how and when to take the medicines.	8 (2)	32 (8)	358 (90)	4.3 (±0.7)
They are well-trained and skillful.	8 (2)	37 (9.3)	353 (88.7)	4.2 (±0.7)
Reception/registration				
We are received at the registration counter in line on first-come-first basis.	7 (1.7)	27 (6.8)	364 (91.5)	4.2 (±0.7)
Staff at the counter are friendly and approachable.	16 (4)	51 (12.8)	331 (83.2)	4.0 (±0.7)
They provide us with clear direction about where to go and whom to meet.	27 (6.7)	50 (12.6)	321 (80.7)	4.0 (±0.8)
They give adequate instruction on maintaining the prescription.	43 (10.8)	72 (18.1)	283 (71.1)	3.8 (±0.9)

Author contribution

Conceptualization, Methodology, Formal analysis, data curation, Writing – original draft, Writing – review & editing: KC, ST, JZ, LW

Investigation, Resource, Visualization, Supervision, Project administration – KC

Received: 14 February, 2025, Accepted: 13 June, 2025

Published online: 08 July, 2025

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