How true is the truth? A study of the factors affecting honest response behaviour of patients in hospital settings

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Abstract

Purpose – The current study is aimed at identifying the prominent influencers that affect the response behaviour of patients in a hospital environment.

Design/methodology/approach – The research is based on the data collected through the participant observation method while interviewing patients about the quality of healthcare services in nine community health centres of the Kashmir division. Thematic analysis was performed on the information collected from patients admitted to various hospital sections.

Findings – The analysis of the qualitative data revealed that the presence of hospital staff near respondents, perceived risk of maltreatment, social desirability, the sensitivity of the topic, risk of information sharing and attitude towards surveys are the most frequently observed factors that modulate the patient's tendency to truthfully report critical facts about the problem understudy.

Originality/value – These results can help researchers to exercise caution while communicating with respondents and collecting data related to serious issues in a natural setting.

Keywords Honest response behaviour, Patients, Hospital, Thematic analysis, Survey research

Paper type Research paper

Introduction

India is one of the world's fastest expanding economies and the second most populated country. Despite substantial advancements in other disciplines, healthcare in India continues to be in a miserable state. In developing countries like India, availability, accessibility and affordability of high-quality healthcare is a major concern. According to Upadhyai *et al.* (2019), 70% of healthcare infrastructure in India is concentrated in the top 20 cities of the country and 30% of the Indian population lacks access to basic healthcare. One of the major hurdles in providing universal health coverage is the dearth of doctors and other healthcare professionals (Kumar and Pal, 2018). India is far behind the WHO recommended a doctor to

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population or nurse to population ratios. While WHO recommends 1 doctor per 1000 population, India has less than one doctor per thousand population (Kumar and Pal, 2018; The Print, 2021). Similarly, India has around 1.7 nurses per 1000 population, against the WHO standard of 3 nurses per 1000 population (Upadhyai *et al.*, 2019; The Print, 2021). The shortfall of manpower in hospitals has significantly contributed to the pressure of rendering medical services and has subsequently compromised the quality of care being delivered to patients in hospitals.

The formal evaluation of healthcare service quality through survey research has been widely carried out from patients' perspectives in developed and developing countries (Brady and Cronin, 2001; Sharma and Narang, 2011; Chahal and Kumari, 2012; Mosadeghrad, 2014; Gupta and Rokade, 2016). However, the reliability of the patient-reported outcomes is still debatable (Chang *et al.*, 2019). The most critical issue in the survey method of data collection is whether the respondents are providing the right information about the subject understudy or not (Preisendorfer and Wolter, 2014). The misreporting of issues occurs because many research questions are loaded with socially sensitive content and are made to enquire about critical issues which respondents feel are undesirable for public disclosure (Krumpal, 2013). Respondents in survey research exhibit a high tendency to under-report undesirable behaviours and over-report desirable behaviours (Lensvelt-Mulders, 2008). Untruthful responses in terms of both under- and over-reporting of information yield unfair and wrong prevalence of sensitive behaviours (Indurkar, 2017). Suppose in a healthcare service survey, if old age patients under-report their need for medical consultation against young, then the analysis of age-specific health issues would not display significant variation between young and old age groups. Also, some respondents tend to give either positive or negative responses to all the questions irrespective of the content of these questions. Tellis and Chandrasekaran (2010) have found that Indian respondents have a bias towards giving positive responses (or saying yes), which leads to over-reporting of things.

The respondents' tendency to report facts accurately is affected by a variety of factors related to the participant itself, the subject understudy and the environment in which the response is elicited (Rasinski *et al.*, 1999; Preisendorfer and Wolter, 2014). The most influential is the respondents' conscious choice based on the utility of the answer. If the utility of the correct answer weighs more than that of the false answer, then the respondent is likely to be truthful (Stocké, 2004). Moreover, the correctness of the answer is often related to the perceived risk of reporting critical issues publicly (Tourangeau *et al.*, 2000). Patients in natural environment settings, i.e. the hospital consciously calculates the benefits and associated risks of reporting the critical factors related to the physical environment and the behavioral aspects of the staff. Patients usually misreport facts to avoid the displeasure of the staff and try to present things in a socially excellent manner (Stocké and Hunkler, 2007).

Given the importance of patient-related outcomes in healthcare service quality, the collection of authentic data is paramount for the effective design and implementation of quality care policies. Hence, the current study aimed to identify the critical factors that affect patients' honest response behaviour in natural hospital settings. The study was conducted as a field experiment in nine community health centres in Jammu and Kashmir, in which researchers conducted interviews and reported observations concerning behavioural reactions of patients on asking questions related to hospital infrastructure and staff competence.

Methodology

Research on respondent behaviour is often conducted by collecting qualitative data in the form of responses or reactions recorded in the form of written transcripts (Castleberry and Nolen, 2018). Additionally, focus group interviews and observation methods are employed to

produce content for the research purpose (Baker, 2006; Islam *et al.*, 2021). Qualitative research provides deeper insights into respondents' perceptions and experiences about the phenomena under study (Rosenthal, 2016). Collecting data from respondents on critical social issues like healthcare practices can be exciting and risky depending on the environmental forces and patients' temperaments concerning the topic (Castleberry and Nolen, 2018). The analysis of the qualitative data brings real fun to the research process.

Area of study

Inpatients and outpatients from 09 community health centres (CHCs) of Kashmir division (CHC Gurez-Bandipora, CHC Tanghdar-Kupwara, CHC Kreeri-Baramulla, CHC Kangan-Ganderbal, CHC Seer Hamdan-Anantnag, CHC Rajpora-Pulwama, CHC Keller-Shopian, CHC Kulgam and CHC Beerwah-Budgam) were considered for the study. Formal permission was obtained from the Directorate of Health Services Kashmir Division before the collection of data from Community Health Centres (CHCs) of Kashmir was initiated. CHCs are an important source of healthcare in rural India, especially Kashmir, where the presence of alternate care facilities such as private hospitals or health care centres run by non-government/non-profit organizations is nil (Rust *et al.*, 2009; Gautham *et al.*, 2011). Nine CHCs are representative samples of nine out of ten districts of Kashmir. CHC Khanyar-Srinagar was not included due to the high presence of alternate care facilities for patients and maintaining the homogeneity of the study environment. The dependence of patients on CHCs is highly critical in rural areas, which makes it imperative to study their honest response behaviour in a monopolistic service environment.

Observation method

An ethnographic research technique, the observation method is termed as a bedrock source of knowledge about the human behaviour and the natural environment (Baker, 2006). A researcher spent a considerable amount of time in a natural setting (hospital) to understand the things from patients perspective. The qualitative research method for the current study rests on the practice of grounded theory, which encompasses theoretical sampling, comparison and saturation (Saunders *et al.*, 2018; Islam *et al.*, 2021). Selecting a sample based on theory and practice is referred to as theoretical sampling (Corbin and Strauss, 1990, 2014). Nine sample CHCs were selected from the available pool of forty CHCs present in the Kashmir Division. Insights about the patients' honest response behaviour were collected by critically observing their behavioural reactions and word selection while responding to the open-ended questions in a semi-structured interview. Patients were asked to respond to open-ended questions related to the service quality of the community health centres. The questions were framed using the SERVQUAL model proposed by Parasuraman *et al.* (1988). Two qualified researchers were employed to collect the data. One researcher asked questions about the service quality of the healthcare centre and the other recorded behavioural reactions and quality of patient responses (word selection) under varying environmental conditions. Researchers from the same place and cultural backgrounds were engaged in the data collection process to maintain homogeneity in the quality of the observations. The observation data recorded as a written transcript by the second researcher during the interview process was subjected to understanding the honest response behaviour of patients. Moreover, to evaluate the reliability of responses, the physical verification of hospital infrastructure was conducted (Annexure 1 to 9). Further photographic evidence of the data collection was also recorded (Figures 1 and 2). Information related to patient care, gender, age and income was collected as a respondent profile. The summary of respondent characteristics is presented in Table 1. The research was focused on targeting patients in

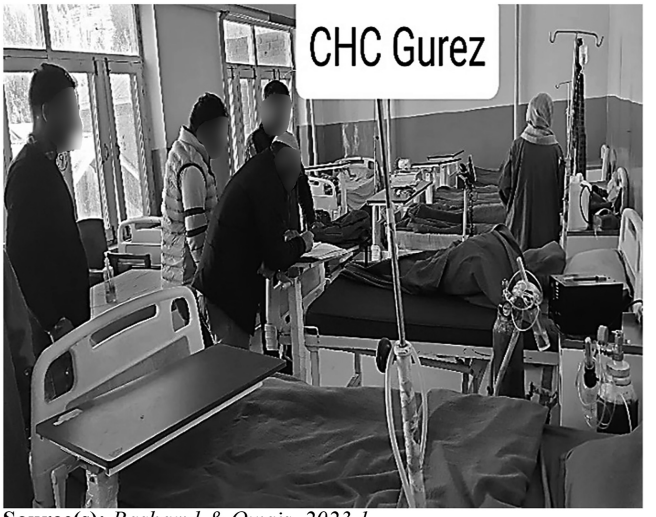


Figure 1.
In-patient department

Source(s): *Basharul & Owais, 2023 1*

Figure 2.
In-patient department

Source(s): *Basharul & Owais, 2023 2*

both inpatient and outpatient departments. The information in Table 1 presents that the maximum percentage (68%) of respondents intercepted belonged to the outpatient category and only 32% of respondents were patients admitted to different sections of the inpatient department.

It is further presented that the majority of the respondents who expressed their willingness to actively participate in the research were males (61%) and only 39% of female patients provided their consent to be interviewed. This may be because the

Respondents characteristics	Categories	Percentage of respondents	Mean observation length (min)
Patient care	Inpatient	32	14
	Outpatient	68	
Gender	Male	61	
	Female	39	
Age	20 Below	11	
	21–40	55	
	41–60	25	
	61 and Above	9	
Monthly income	15,000 and Less	53	
	16,000–30,000	27	
	31,000–45,000	13	
	46,000 and Above	7	

Source(s): Author

Table 1. Respondent characteristics

introverted behaviour of rural women prevents them from freely expressing themselves in public.

The examination of the data provided that the highest percentage of respondents belonged to the age group of 21–40 years (55%) followed by 41–60 years (25%). This indicates that rural adults are the largest consumer group of hospital services. Besides receiving personal treatment, they visit healthcare facilities for other varied reasons such as sickness of children, wives and old aged parents. More than 50% of respondents belonged to 15,000 and less income strata and only 7% expressed having a monthly income of 46,000 and above. The mean length of interaction and observation was 14 min. The researchers spent around 05.28 h in each CHC on average, which sums up to 47.6 h of active observation time for 09 sampled CHCs. All the patients who actively participated in the research process expressed their agreement to record the information as written notes. This whole process generated 233 pages of verbatim transcripts in an average time of 14 min per patient.

Results and discussions

The nature of patient response behaviour in surveys is subjective; therefore, a significant consideration has been applied to identify and understand the factors that affect their way of responding. Thematic analysis of the written transcripts was conducted by two researchers to identify possible themes that describe the potential influencers of honest response behaviour among patients in a natural hospital setting. For example, the current study observed an overall positive response in reaction to the questions related to the infrastructure of CHCs and later the facilities were not found up to the mark as per Indian Public Health Standards (IPHS) on physical verification. The summary of the thematic analysis is presented in Table 2.

Thematic analysis results

In India, CHCs play a vital role in providing immediate care to the rural population. CHCs bridge the gap between sub-centres and district hospitals. Previous researchers such as Malhotra *et al.* (2014) and Saikia and Das (2016) have argued that there is a serious gap in the

Questions-SERVQUAL model	Word selection	Behavioural reaction	No. of respondents	Average respondents/ CHC	Observed themes
Hospital Infrastructure Reliability of treatment and diagnostic facilities Assurance of Treatment Responsiveness and empathetic behaviour of staff	Everything is alright, Best facility, Efficient Staff, Very helpful, All Tests are done, Medicines are provided inside, Regular visit, Not spent a penny on treatment from two days, Staff is always available, Hospital is clean like home, They do not care about the patient, Staff is sleeping on night duty, She did not come after multiple calls, They do not examine patients properly	Consciousness Pause High amount of Aggression Nervousness Fumbling to Respond Smiling and Leaving Looking Around	78 64 29 18 26 31 66	8.7 7.1 3.2 2.0 2.9 3.4 7.3	Hospital Staff Presence
	We have only this hospital to visit for treatment, This doctor is good- rest I don't know, They follow proper procedure, I am fully satisfied, I cannot just say bad about anyone, Sir you come for one day and we have to deal with them for our purpose	Fear Nervousness Casual reaction to a questions	34 18 46	3.8 2.0 5.1	Perceived Risk of Maltreatment
	I cannot say anything, If I said anything it may affect the doctor, This is my first visit to a hospital in a lifetime, They are good, i.e. why Government appointed them, Talking bad about someone is a sin	Avoiding questions Caution Giving ambiguous answers	61 57 49	6.8 6.3 5.4	Sensitivity of the Topic/ Question

Table 2.
Thematic analysis of written transcripts

Source(s): Authors

quality of care received by patients at the CHC level. There is a high tendency among patients to misreport the facts related to the quality of healthcare service being provided at CHCs (Preisendorfer and Wolter, 2014). Hence, to get insights into the embellished claims of patients, word selection and behavioural reaction of patients was critically observed while responding to the questions related to healthcare service quality. The themes identified during the analysis of written transcripts produced during interaction with patients are discussed below:

(1) *Hospital Staff Presence*

The presence of hospital staff near patients was widely witnessed during the interaction with patients admitted to different sections of the hospital. This theme captures the positional advantage or undue influence being exercised by the staff over the patient through his presence while responding. On the one hand, it elicited highly positive responses about the service quality determinants. This was evident from the high frequency of words (e.g. everything is alright, best facility, efficient staff, very helpful, all tests are done, all medicines are provided inside the hospital, regular visits of staff, not spent a penny on treatment from two days, the staff is always available, the hospital is clean like home) spelled by the respondent during the interaction process. Conscious thinking behaviour was observed in patients speaking highly positively about hospital services. More than 78 respondents out of 100 spoke very consciously in the presence of staff. On the other side, the presence of staff aggravated the response behaviour of patients who suffered at the hands of the medical staff. They spoke in a high tone and the frequency of words like 'they do not care about the patient, the staff is sleeping on night duty, the nurse did not come after multiple calls and they do not examine patients properly' were widely reported in their speech. Highly aggressive response behaviour was displayed by these respondents (29 respondents). It was also witnessed that in the absence of hospital staff, the respondents displayed an increased tendency to give below-average ratings to the hospital facilities and staff service at the respective CHCs. These patients constantly looked around (66 respondents) to check staff presence while responding to questions, pointing to staff arrival and exercising avoidance behaviour (61 respondents).

> I was admitted to the hospital last night. Till now nobody cared to examine me. They are just giving me a DNS infusion. My pain has still not subsided fully, but nobody cares. I was also told to get the medicines from outside [Patient in hospital emergency].

Researchers such as Preisendorfer and Wolter (2014) believed that respondents who speak positively in public are influenced by the social desirability factor. Under social desirability, respondents (patients) try to present themselves in a socially good way. They misreport the facts to prevent disapproval from the social environment, i.e. the hospital staff (Stocké and Hunkler, 2007). Larson (2019) deciphered that social desirability bias can cause serious changes in examined demographic characteristics and thus have serious implications on the results of survey research. An interesting finding reported by Aquilino (1993) provides support to the findings of the current study. He deciphered that the presence of the spouse during the interview caused husbands to speak more positively about the utility of marriage and women's contribution to household work.

(2) *Perceived Risk of Maltreatment*

The perceived risk of maltreatment refers to the fear of being poorly treated. This theme captures the patients' insecurity about the threat of receiving inadequate treatment by the staff on duty (Doctors and Paramedical Staff). Maltreatment can be referred to as the deviation from the established standards of quality healthcare service delivery. It includes poor medical examination and the expression of rude behaviour by medical

attendants. The perceived fear resulted in over-reporting of service quality and availability of physical infrastructure besides expressions of helplessness due to the unavailability of alternate care facilities. One of the patients in the outpatient department stated that,

> Sir, you come once in a blue moon and we usually have to deal with them for our purpose, so I cannot just say bad about anyone around [Patient in the outpatient department].

Patients displayed high fear (34 respondents), nervousness (18 respondents) and showed a casual reaction (46 respondents) to questions related to hospital staff. Researchers such as Agnew-Blais and Danese (2016) have found that the risk of maltreatment significantly produces negative outcomes in patients, which is a serious issue. Pillemer (1988) has also argued that in substandard hospital environments, patients face maltreatment issues on neglected medicinal and nutritional needs besides being verbally/physically abused. It can also be referred to the devoid of interpersonal care in healthcare centres. Teicher and Samson (2013) also deciphered that maltreated individuals develop anxiety and are prone to report false responses to treatment. Research on maltreatment issues can provide valuable insights into the true quality of care being delivered, the hospital staff behaviour and the degree of relationship between patients and the provider.

(3) *Sensitivity of the Topic/Question*

The sensitivity of the topic or the research questions indicates the criticality of the matter concerning public disclosure. Patients consider questions sensitive if they perceive the fear of negative repercussions of information revelation. The respondents during the interaction exercised a reasonable level of caution (57 respondents) while responding to serious issues related to the healthcare system. They displayed a high tendency to avoid answering (61 respondents) and to give ambiguous responses (49 respondents).

> I cannot say anything-this is my first visit to a hospital in a lifetime and talking bad about someone without actually knowing is a sin [Patient admitted to general ward].

The high frequency of words like I cannot say anything, doctors are good, i.e. why the government appointed them, nothing is right here, whatever I will say may affect the person badly, talking bad about someone is a sin, etc. were witnessed in their speech. It denotes that patients refrain from responding candidly and make generalized claims about the behaviour of staff (doctors, nurses, administration). Topic sensitivity affects patients' readiness to participate in the survey in the first instance. The findings of the study deduce that patients' willingness to respond to sensitive questions and report facts about the subject is significantly affected when they explicitly perceive the harm of disclosure (Couper *et al.* (2010). Roster *et al.* (2014) have argued that topic sensitivity significantly describes individuals' non-preference to answer and varies between people based on their cultural backgrounds. Further, Indurkar (2017) in a study of the sensitive behaviour of Indian males emphasized that researchers should take utmost care while trying to understand social taboos, mental state, public health and other sensitive issues as they often generate inaccurate estimates.

Theoretical implications

The outcome of the present study has significant implications for researchers who adopt the survey method for data collection related to critical issues in a natural environment. First, the results reinforce the prerequisite to examine the sensitivity of the topic and the environment targeted for the study. Second, the relative importance of the subject of the inquiry for participants must be given due consideration to avoid misleading claims

being made by respondents to protect their vested interests. The study fortifies the requirement of cross-validation of the findings of the survey by conducting validation studies.

Conclusion

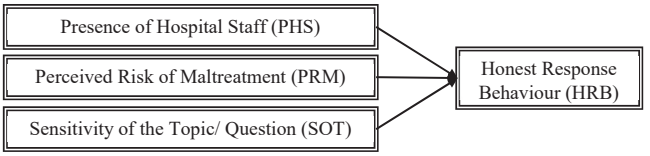
The results of the study can provide valuable insights into understanding the trueness of response behaviour related to critical social issues in natural settings. Careful examination of patient behavioural reactions and word selection revealed that the presence of hospital staff causes respondents to perform both over-reporting and under-reporting of issues. Patients displayed a high tendency to make embellished statements about the quality of care being provided at the hospital in the presence of staff and detested the same in their absence. Further, the study found that the perceived risk of maltreatment by staff prevents respondents to speak their hearts out, especially in a monopolistic natural environment. Respondents usually avoid or divert from responding to sensitive topics/questions related to any organization or person to avoid dissent from the surrounding people. Patients were reported providing ambiguous and incorrect information, which they feel is sensitive for public disclosure.

Limitations and future research

The first main limitation of the current study is that the research is purely theoretical and qualitative. Hence, empirical research can be conducted to validate the impact of identified factors on the honest response behaviour of respondents. Second, only community health centres were targeted as a target population for the study. Hence, for more generalizability, tertiary care and other social/consumer groups can be studied. Lastly, a manual analysis of written transcripts was performed. Thematic analysis software such as Thematic, MAXQDA, etc. can be used to identify more accurate themes based on word frequency and sentence structure.

Theoretical contribution

The study contributed to the growing body of knowledge by proposing a conceptual framework for assessing honest response behaviour (HRB) (Figure 3). The study identified three factors viz. the presence of hospital staff (PHS), perceived risk of maltreatment (PRM) and sensitivity of the topic/question (SOT) as potential determinants of honest response behaviour. We expect a negative impact of all three factors (PHS, PRM and SOT) on honest response behaviour. However, the prepositions need to be empirically validated.



Source(s): Developed by authors

Figure 3.
Conceptual framework

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Appendix

The appendix file for this article can be found online.

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