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Assessment of Patient Satisfaction in the Out Patient Department of a Healthcare Centre in Rural Area of Bihar, India: A Cross Sectional Study

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Authors' contributions

This work was carried out in collaboration among all authors. Author SC did the conception of idea, did the design of the study, did the review of literature, did the collection of data, did the statistical analysis, did the drafting of manuscript, did the review of manuscript, did the final approval of manuscript. Author NHR did the conception of idea, did the design of the study, did the collection of data, did the drafting of manuscript, did the final approval of manuscript. Author YJ did the design of the study, did the review of manuscript, did the final approval of manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Background: Patient satisfaction is a crucial indicator of the quality of healthcare services and plays a significant role in patient loyalty, treatment adherence, and overall healthcare outcomes. This study aims to assess patient satisfaction in the outpatient department of a healthcare centre in rural Bihar.

Methodology: The study utilized a cross-sectional design, collecting data from a sample of 200 patients visiting the outpatient department of a healthcare centre in a rural town in Bihar, India. A semi-structured questionnaire was developed, consisting of validated scales and items to measure various dimensions of patient satisfaction. The survey was administered to patients during their visit, and data were collected through direct interviews.

Results: Overall, the majority of patients expressed satisfaction with the care they received, with a high percentage indicating positive experiences across various dimensions. A significant portion of patients were satisfied (88; 44%) or highly satisfied (56; 28%). Communication with healthcare providers emerged as a significant driver of patient satisfaction, highlighting the importance of clear and empathetic communication in fostering positive patient experiences. Staff behavior and professionalism were identified as areas requiring attention, emphasizing the importance of staff training and the need for a patient-centered approach in healthcare delivery.

Conclusion: Age, gender, and educational level have varying effects on satisfaction levels, suggesting the importance of tailoring services to meet the specific needs of different patient groups. Furthermore, the study examined the impact of patient expectations on satisfaction and found that aligning patient expectations with the services provided is crucial in achieving high levels of patient satisfaction.

Keywords: OPD; rural India; satisfaction; services.

1. INTRODUCTION

Hospitals are integral to modern healthcare, providing curative and preventive services that reach beyond their premises to the community. The outpatient department (OPD) serves as a critical reflection of a hospital's efficiency, offering cost-effective services to patients without the need for hospitalization (Goyal et al., 2016). With advancements in healthcare, OPDs have evolved to provide a wide range of services, significantly reducing the burden on inpatient care and enhancing patient accessibility. The role of the OPD extends beyond patient care, serving as an educational platform for health promotion and preventive care, in alignment with the Alma Ata Declaration's emphasis on primary healthcare (World Health Organization, 1978). Patient satisfaction, a key indicator of healthcare quality, has gained prominence in today's competitive healthcare environment. It not only reflects the efficiency of hospital services but also influences patient loyalty and institutional reputation (Lyu et al., 2013). Satisfied patients act as ambassadors, fostering trust and confidence in the healthcare system. This is especially crucial in states like Bihar, where healthcare challenges such as limited infrastructure and workforce shortages persist (Darmstadt et al., 2020). Private hospitals, particularly in rural areas, play a vital role in addressing these challenges, yet patient satisfaction in OPDs remains underexplored. Assessing patient satisfaction in OPDs of private hospitals in Bihar is essential to identify gaps, improve service delivery, and enhance healthcare outcomes. The findings from such research can guide targeted interventions and policies, fostering a patient-centered approach. Ultimately, prioritizing patient satisfaction in OPDs contributes to building a robust and trustworthy healthcare system in the state. The primary objective is to assess patient satisfaction in the OPD of a private hospital in a rural city of Bihar, India, while the secondary objectives include estimating patient flow, identifying factors influencing patient satisfaction.

2. METHODOLOGY

This study aimed to assess patient satisfaction in the outpatient department (OPD) of a healthcare centre in the rural town Sheikhpura of Bihar, India. A cross-sectional design was employed to gather data at a single point in time, allowing for efficient analysis of relationships between variables. The target population comprised patients of all ages and genders who sought

services in the OPD during the study period. Using random sampling, participants were selected by assigning unique identification numbers and generating a random sequence to ensure equal representation. A sample size of 200 participants was determined assuming p=50% at 95% confidence level and 7% margin of error, using the formula $4pq/d^2$. Data were collected using a structured questionnaire adapted from validated tools and tailored to the hospital's context. It covered aspects such as waiting times, staff communication, and overall experience. The questionnaire underwent a pilot test with 30 patients, achieving a high reliability score (Cronbach's alpha = 0.87). We obtained informed consent and ensured anonymity of the participants. Data were collected at various times of the day to capture diverse patient experiences. The study adhered to ethical standards, including confidentiality and voluntary participation, and received approval from the hospital administration.

3. RESULTS

The majority of the patients (92; 46%) were children below 10 years, indicating that pediatric cases formed a significant portion of OPD visits. Patients aged 31-50 years comprised 48 (24%), while those aged 11-30 years accounted for 32 (16%). Only 26 (13%) were above 50 years (Table 1). More females (116; 58%) attended the OPD compared to males (84; 42%).

The majority of patients (128; 64%) fixed appointments directly, while 72 (36%) used phone calls. This suggests that direct appointment booking remains the dominant method. Just over half of the patients (108; 54%) reported that their appointments were on time, whereas 92 (46%) faced delays, indicating room for improvement in punctuality. Most patients (132; 66%) completed new registration within 5–10 minutes, while 76 (38%) took less than 5 minutes. However, 32 (16%) experienced delays exceeding 10 minutes. A majority (120; 60%) waited for 15–30 minutes before consultation. While 52 (26%) were seen within 15 minutes, 28 (14%) had to wait for over 30 minutes, highlighting scope to reduce waiting times. Most patients (148; 74%) found the helpdesk useful, but 52 (26%) did not, indicating a potential gap in addressing all patient queries effectively. While

Table 1. Demographic Data of participants

Parameter		Frequency	Percentage
Age	<10 years	92	46
	11-30	32	16
	31-50	48	24
	>50	26	13
Gender	Male	84	42
	Female	116	58

Table 2. Patient Experiences in the OPD

Parameter		Frequency	Percentage
Method of Fixing Appointment	Directly	128	64%
	Phone call	72	36%
Appointment Time Maintained	Yes	108	54%
	No	92	46%
Time taken for new registration	< 5 minutes	76	38%
	5-10 minutes	132	66%
	>10 minutes	32	16%
Waiting time at the OPD	< 15 minutes	52	26%
	15-30 minutes	120	60%
	> 30 minutes	28	14%
Usefulness of Helpdesk	Useful	148	74%
	Not useful	52	26%
Were the services patient friendly	Yes	112	56%
	No	88	44%
Awareness about health camps	Aware	44	22%
	Unaware	156	78%

Table 3. Patient Satisfaction in the OPD

Parameter		Frequency	Percentage
Level of patient satisfaction	Highly satisfied	56	28%
	Satisfied	88	44%
	Dissatisfied	40	20%
	Highly dissatisfied	16	8%
Consideration about referring an acquaintance	Yes	80	40%
	Maybe	64	32%
	No	56	28%

112 (56%) rated the services as patient-friendly, a significant 88 (44%) did not share this perception, calling for service enhancements. Only 44 (22%) of the patients were aware of health camps, while the majority (156; 78%) were unaware, reflecting a need for better communication strategies to promote such initiatives (Table 2).

A significant portion of patients were satisfied (88; 44%) or highly satisfied (56; 28%). However, 40 (20%) were dissatisfied, and 16 (8%) were highly dissatisfied, indicating mixed satisfaction levels. While 80 (40%) of the patients expressed a willingness to refer the hospital to acquaintances, 64 (32%) were unsure, and 56 (28%) said they would not refer, pointing to areas where patient confidence needs bolstering. (Table 3)

4. DISCUSSION

Patient satisfaction is a vital measure of healthcare quality, and understanding the factors influencing it can guide improvements. This study provides insights into various parameters of patient satisfaction and compares the findings with other studies in similar settings. Our study found that children below 10 years constituted the largest proportion of OPD visits (46%), emphasizing the significant pediatric caseload. This differs from other studies, such as Kumari et al. (2009) in Lucknow, where adult patients dominated OPD visits. Female patients comprised 58% of attendees in our study, similar to findings by Gupta et al., (2014) which also reported higher female attendance, potentially reflecting better healthcare-seeking behavior among women in certain regions. Direct appointment booking was preferred by 64% of patients, while 36% used phone calls, showing limited utilization of remote methods. (Kulkarni, 2018) also highlighted the inefficiency of alternative appointment systems in their study. Appointment punctuality was maintained for 54% of patients, while 46% faced delays, indicating the need for operational improvements. Comparatively, Geberu et al. (2019) in Ethiopia reported similar challenges with timeliness. Registration delays affected 16% of patients, aligning with findings by Panda et al., (2018) who also noted inefficiencies in the registration process. Strategies like streamlining registration and increasing the number of counters, as suggested by Mohd & Chakravarty, (2014), could address this issue. Most patients (60%) waited between 15–30 minutes before consultation, with 14% waiting over 30 minutes. These findings are consistent with Kulkarni et al., (2018); Langstieh et al. (2022) and Kumar & Pandey, (2023). who reported prolonged waiting times as a significant dissatisfaction factor. Our study observed a higher satisfaction level regarding public amenities, with 74% finding the helpdesk useful and 56% rating services as patient-friendly. In contrast, Kulkarni et al. (2019) and Panda et al. (2018) reported dissatisfaction with public facilities, including drinking water and toilets, highlighting the importance of maintaining hygiene and accessibility to enhance satisfaction. A notable gap was observed in awareness about health camps, with 78% of patients being unaware. This mirrors findings by Gupta et al., (2014) who also emphasized the need for better outreach and communication strategies to promote such initiatives. Targeted efforts using digital and traditional media can bridge this awareness gap. In our study, 44% of patients were satisfied, and 28% were highly satisfied with the services. These satisfaction levels are slightly lower than those reported by Deva et al. (2010) (80%) and Bhattacharya et al. (2003) in India (88%), possibly due to differences in study populations and healthcare settings. However, the satisfaction level regarding doctor consultation (97%) was consistent with high levels reported by Jain et al. (2016) in Lucknow (97%) and Tasneem et al. (2010) in Pakistan (95.5%) and exceeded those reported by Kumari

et al. (2009) in Lucknow (73%), Kebede et al. (2021) in Ethiopia (59.4%) and Yenuganti et al. (2021) in Tamil Nadu (66.6%).. This highlights the pivotal role of communication and consultation time in driving satisfaction. While 40% of patients expressed willingness to refer others to the facility, 32% were unsure, and 28% declined, indicating areas for improvement. The findings align with studies by Ofili & Ofovwe, (2005). in Benin City, where patient trust and confidence significantly influenced referral patterns. Improving interpersonal aspects of care, such as staff behavior, could enhance referral willingness, as suggested by Qureshi et al. (2009) in Kashmir. Similar to other studies, this study's findings emphasize the need for targeted training to improve staff behavior and communication skills, as highlighted by Mohd & Chakravarty, (2014). Awareness campaigns and patient education programs can further boost satisfaction and engagement.

5. CONCLUSION

This study highlights patient satisfaction as a crucial measure of healthcare quality, with a significant proportion of participants expressing overall satisfaction with OPD services. While most respondents were content with doctor consultation and basic facilities, areas like waiting times, staff behavior, and public amenities require attention. Awareness of health initiatives also emerged as a gap. Despite some limitations, the study underscores the need for targeted interventions, including improved staff training, streamlined processes, and enhanced patient-centric services. These efforts can boost satisfaction levels and strengthen trust in the healthcare system, ultimately improving the overall patient experience in tertiary care settings.

6. LIMITATIONS AND STRENGTHS

One limitation of the study is its single-center design, which may limit the generalizability of the findings to other healthcare settings. The cross-sectional design restricts the ability to draw conclusions about causal relationships between satisfaction and contributing factors. The reliance on self-reported data could introduce biases such as social desirability, affecting the accuracy of the responses.

The study identifies key areas for improvement, such as reducing waiting times, enhancing staff communication, and upgrading public amenities, all of which can significantly boost patient satisfaction. Improving awareness of health initiatives, particularly through targeted communication strategies, can engage patients more effectively. The results also underscore the importance of staff training to improve interpersonal skills and patient trust. Future research, especially multi-center studies with larger sample sizes, would offer broader insights into patient satisfaction across diverse healthcare environments.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

DATA AVAILABILITY

The datasets will be made available on reasonable request to the corresponding author.

ETHICAL APPROVAL AND INFORMED CONSENT

Ethical approval was obtained from the Institutional Ethics Committee of Dr. D. Y. Patil Vidyapeeth, Pune and written informed consent was obtained from the participants prior to data collection.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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