



"PERCEPTIONS AND REALITIES: A STUDY ON PATIENT SATISFACTION IN OVERCROWDED EMERGENCY DEPARTMENTS"

Emergency Medicine

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ABSTRACT

Background: Patient satisfaction is a vital component of quality healthcare, particularly in high-demand environments like the emergency department (ED). Perception of overcrowding in the ED has the potential to significantly influence patient satisfaction. This audit evaluates patient satisfaction with ED services and their perceptions of overcrowding, aiming to identify areas for improvement and propose actionable recommendations. **Aim:** To assess patient satisfaction and perceptions of ED overcrowding and suggest recommendations to enhance patient experience. **Methods:** This audit was conducted over a 2-week period in the Emergency Department of Sri Venkateswara Institute of Medical Sciences, Tirupati, with a sample of 400 patients aged 18 and above. Patient satisfaction metrics were assessed through surveys, which also measured perceptions of overcrowding. Statistical analysis was conducted using descriptive and correlation analyses. **Results:** Overall, 78.8% of patients were satisfied with their ED experience. However, dissatisfaction with wait times was substantial, with 91.7% of patients expressing dissatisfaction. The perception of overcrowding was moderate to high among 76.4% of patients, though it did not significantly impact overall satisfaction for most individuals. **Conclusions:** Patient satisfaction remains high despite significant dissatisfaction with wait times. High satisfaction with staff professionalism, courtesy, and responsiveness may mitigate negative experiences related to long wait times. Recommendations include strategies for wait time management and ED expansion to alleviate overcrowding.

KEYWORDS

INTRODUCTION:

Patient satisfaction is a critical quality indicator in healthcare and is especially important in high-pressure environments such as emergency departments (EDs). Overcrowding in the ED can lead to delays in care, impacting patient perceptions and potentially reducing satisfaction. Understanding how patients perceive overcrowding and its effect on their overall satisfaction is crucial for improving healthcare service delivery.

This clinical audit aims to evaluate patient satisfaction with ED services at Sri Venkateswara Institute of Medical Sciences (SVIMS), Tirupati, focusing on their perception of overcrowding and its influence on their experience. By identifying key factors affecting satisfaction, the study provides recommendations to optimize the quality of care and enhance patient experiences in overcrowded settings.

Methodology:

Setting:

The audit was conducted in the Emergency Department of SVIMS, Tirupati. This ED serves a large volume of patients, the majority of whom present with illnesses rather than trauma-related injuries.

Sample Population:

The study involved 400 patients admitted through the ED and subsequently discharged or admitted to the hospital. Inclusion criteria included patients aged 18 years or older who were able to provide informed consent. Patients who were unable to consent due to medical conditions or language barriers were excluded.

Data Collection:

Data were collected over two weeks using patient surveys administered at the time of discharge. The survey evaluated various aspects of patient satisfaction, including overall experience, wait times, and perceptions of overcrowding. Additionally, it measured patient views on staff professionalism, courtesy, responsiveness, and clarity of information provided during their ED stay.

Data Analysis:

Descriptive statistics were used to summarize patient satisfaction scores, and correlation analyses were employed to assess the relationship between perceived overcrowding and overall satisfaction. Results were represented in terms of percentages and satisfaction

levels on a 5-point Likert scale.

RESULTS

Demographics

- Age Range:** 12 to 88 years old
- Gender Distribution:**
- Male: 58.8%
- Female: 41.2%

Patient Satisfaction Metrics

Table 1. – Patient satisfaction metrics

Metric	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Overall Satisfaction	0%	78.8%	17.6%	3.5%	0%
Wait Time Satisfaction	0%	0%	8.2%	14.1%	77.6%
Staff Courtesy	12.9%	75.3%	10.6%	1.2%	0%
Information Clarity	11.8%	75.3%	11.8%	1.2%	0%
Staff Responsiveness	9.4%	85.9%	4.7%	0%	0%
Staff Professionalism	9.4%	85.9%	4.7%	0%	0%

- 78.8% were Satisfied
- 17.6% were Neutral
- 3.5% were Dissatisfied
- No patients reported being Very Satisfied or Very Dissatisfied
- 77.6% were Very Dissatisfied with wait times
- 14.1% were Dissatisfied with wait time
- Only 8.2% were Neutral (3) or higher with wait time

Facility and Environment

Table 2. – satisfaction regarding facility and Environment

Aspect	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Cleanliness	10.6%	76.5%	12.9%	0%	0%
Waiting Area Comfort	9.4%	60%	28.2%	2.4%	0%
Amenities Availability	10.6%	67%	21.2%	1.2%	0%
Signage/Directions	10.6%	71.8%	16.5%	1.2%	0%

- Staff Courtesy:** 88.2% were Satisfied or Very Satisfied
- Info Clarity:** 87.1% were Satisfied or Very Satisfied
- Staff Responsiveness:** 95.3% were Satisfied or Very Satisfied
- Staff Professionalism:** 95.3% were Satisfied or Very Satisfied

Overcrowding Perception**Table 3. – Overcrowding perception**

Aspect	Percentage
Not overcrowded	3.5%
Slightly overcrowded	20%
Moderately overcrowded	57.6%
Very overcrowded	15.3%
Extremely overcrowded	3.5%

- Average overcrowding level: 3.12 out of 5
- 23.5% rated the ED as Not overcrowded or slightly overcrowded
- 76.5% rated it as Moderately overcrowded or worse
- Only 10.6% of patients reported that overcrowding impacted their experience.

Overall Experience and Recommendation

- **Overall Experience:**
- Excellent: 0%
- Good: 72.9%
- Average: 22.4%
- Poor: 4.7%
- Very Poor: 0%
- **Would Recommend:** 95.3% of patients would recommend this ED.

DISCUSSION

The relationship between patient satisfaction, wait times, and overcrowding in emergency departments (EDs) is complex and multifactorial. This clinical audit, conducted in the ED of Sri Venkateswara Institute of Medical Sciences (SVIMS), Tirupati, reveals several noteworthy findings that can guide the improvement of patient care and operational efficiency in emergency settings. Despite significant dissatisfaction with wait times, the overall satisfaction rate was relatively high, suggesting that other factors, particularly staff performance, play a crucial role in shaping patient experiences.

Impact Of Overcrowding On Patient Satisfaction

Overcrowding in EDs is a pervasive issue that has been consistently associated with reduced quality of care, patient dissatisfaction, and worse clinical outcomes^{1,2}. In this audit, 76.4% of patients perceived the ED as moderately to extremely overcrowded. However, only 10.6% reported that overcrowding had a direct negative impact on their overall experience. This finding contrasts with some studies, which suggest that perceived overcrowding significantly lowers patient satisfaction³. For example, Pines and Hollander (2008) demonstrated that ED crowding is often associated with longer wait times, reduced time spent with physicians, and an overall decrease in the quality of care for patients with severe pain⁴.

One possible explanation for the lower-than-expected impact of perceived overcrowding on overall satisfaction in this audit is the high level of patient satisfaction with staff performance. Patients who feel well-cared-for by courteous and professional staff may be more willing to tolerate suboptimal conditions such as overcrowding and long waits⁴. It is also possible that many patients are aware that overcrowding is often beyond the control of the hospital staff and attribute the delays to systemic issues rather than individual care providers. This may mitigate the negative impact of overcrowding on their overall satisfaction⁵.

Despite this, the data indicates that overcrowding should still be considered a key area for improvement. As ED volumes continue to rise globally due to aging populations, increased prevalence of chronic conditions, and limited access to primary care, overcrowding is likely to become more pronounced unless proactive measures are implemented^{6,7}. Hospitals should consider addressing both the perception and reality of overcrowding through better communication, streamlined processes, and physical infrastructure improvements^{8,9}.

Wait Times: A Major Source of Dissatisfaction

Long wait times emerged as a critical issue in this audit, with 91.7% of patients expressing dissatisfaction. This dissatisfaction is consistent with previous studies, where wait times are frequently cited as one of the most influential factors affecting patient satisfaction in EDs^{10,11}. In particular, research by Boudreaux and O'Hea (2004) found that ED wait times are a key driver of patient satisfaction and that reducing these times can significantly improve overall patient experiences¹⁰.

In this audit, no patients rated their wait time experience as "very satisfied," while a staggering 77.6% rated it as "very dissatisfied." This level of dissatisfaction suggests a significant mismatch between patient expectations and the ED's capacity to meet those expectations¹². Several factors could contribute to long wait times, including a high volume of patient arrivals, delays in diagnostic testing, or bed availability for admitted patients¹³. The challenge, therefore, lies in balancing the need to deliver timely care with the reality of resource limitations.

It is important to recognize that long wait times can also have clinical implications beyond patient satisfaction. Studies have shown that prolonged ED wait times are associated with worse outcomes for certain conditions, such as myocardial infarction, sepsis, and stroke, where delays in diagnosis and treatment can lead to increased morbidity and mortality^{14,15}. For these reasons, addressing wait times should be a priority not only from a patient satisfaction perspective but also from a clinical outcome's standpoint¹⁶.

The Role of Staff Performance in Mitigating Dissatisfaction

A striking feature of this audit is the high level of patient satisfaction with staff performance. Over 90% of patients expressed satisfaction with the courtesy, professionalism, and responsiveness of ED staff. This finding is particularly important in light of the overwhelming dissatisfaction with wait times, as it suggests that patients are willing to overlook delays if they perceive that the care they receive is of high quality once they are attended to^{17,18}.

The relationship between staff performance and patient satisfaction is well-documented in the literature. According to Taylor and Benger (2004), patient satisfaction in emergency settings is heavily influenced by their interactions with healthcare providers, particularly in terms of communication, empathy, and the provision of clear information¹⁹. This audit reinforces those findings, as 87.1% of patients reported satisfaction with the clarity of information provided by ED staff.

High levels of staff performance may help offset some of the dissatisfaction caused by long wait times and overcrowding by maintaining patient trust in the care they receive. When patients perceive that their care providers are professional, attentive, and competent, they are more likely to feel reassured, even if the overall ED experience falls short in other areas²⁰.

Comparison With Existing Literature

The findings of this audit are consistent with much of the existing literature on ED satisfaction. For example, Boudreaux and O'Hea (2004) emphasize the importance of both environmental factors (such as wait times and overcrowding) and interpersonal factors (such as staff communication and professionalism) in shaping patient experiences¹⁰. However, this audit highlights a particularly strong mitigating effect of staff performance on overall satisfaction, even in the face of significant dissatisfaction with wait times^{11,18}. This underscores the need for EDs to invest not only in improving operational efficiency but also in maintaining high standards of patient-provider interaction^{19,12}.

Other studies have also examined the concept of "satisfaction resilience," wherein patients may remain satisfied with their overall experience despite negative aspects of their care. Pines and Hollander (2008) noted that factors such as staff empathy and clear communication can buffer the impact of overcrowding and delays, helping to preserve patient satisfaction³. The results of this audit suggest that the ED at SVIMS has successfully fostered this kind of satisfaction resilience, likely due to the high performance of its staff²⁰.

Potential Interventions For Improvement

Based on the findings of this audit, several interventions could be implemented to address the areas of dissatisfaction and further enhance patient satisfaction:

1. Wait Time Management:

- **Fast-Track Systems:** One potential solution to reduce wait times is the implementation of fast-track systems for patients with less urgent conditions. By separating low-acuity patients from those requiring more intensive care, EDs can expedite the treatment process and reduce overall wait times^{1,8}.
- **Estimated Wait Times:** Providing patients with accurate estimated wait times can help manage their expectations and reduce frustration⁷. Research has shown that when patients are

kept informed about delays, their perception of wait times improves, even if the actual wait time does not decrease.

- **Triage Optimization:** Streamlining the triage process can ensure that patients are prioritized appropriately based on the severity of their condition. Investing in additional triage staff during peak hours may also help reduce bottlenecks in patient flow.

2. Overcrowding Mitigation:

- **Patient Flow Management:** Efficient patient flow management is essential to reduce overcrowding. This may involve strategies such as "vertical triage," where patients who do not require a hospital bed are treated while seated in waiting areas. Another option is the use of "discharge lounges" for patients awaiting final processing, freeing up ED beds for incoming patients.
- **ED Expansion:** Depending on the physical limitations of the facility, expanding the ED to accommodate more patients during peak hours may be a long-term solution. However, this is often a costly and time-consuming process.

3. Staff Training And Retention:

- **Ongoing Training:** Maintaining high levels of staff performance is critical for patient satisfaction. Ongoing training in communication, empathy, and professionalism should be a priority to ensure that staff can continue to meet patient expectations.
- **Staff Wellbeing:** Ensuring the wellbeing of ED staff is also important, as burnout can negatively affect performance. Offering adequate support, manageable workloads, and opportunities for professional development can help maintain high levels of staff engagement and patient care quality.

4. Facility Enhancements:

- **Improving the Physical Environment:** Patient comfort in the waiting area can also impact overall satisfaction. Simple enhancements, such as more comfortable seating, entertainment options (e.g., TVs, Wi-Fi access), and access to refreshments, can improve patient experiences while they wait.
- **Pharmacy Services:** Providing on-site or easily accessible pharmacy services can expedite the discharge process for patients who require medications, reducing bottlenecks and improving overall patient flow.

Policy Implications

The findings of this audit have significant implications for hospital policy and resource allocation. First and foremost, addressing the issue of long wait times should be a top priority. This can be achieved through a combination of better triage processes, additional staffing during peak hours, and the use of technology to provide patients with real-time updates on their expected wait times.

Moreover, the audit highlights the importance of maintaining high standards of staff performance, even in the face of increasing patient volumes. Hospitals should invest in regular staff training programs and provide ongoing support to ensure that healthcare providers are equipped to deliver high-quality care under pressure.

Additionally, the relatively low impact of overcrowding on patient satisfaction in this audit suggests that hospitals should focus on improving patient flow and communication rather than solely expanding ED capacity. For instance, ensuring that patients are kept informed about the reasons for delays and providing them with estimated wait times can go a long way in mitigating the frustration associated with overcrowding.

CONCLUSION:

This clinical audit highlights the resilience of patient satisfaction in the face of overcrowding and wait time dissatisfaction. While reducing wait times remains a priority, maintaining high standards in staff performance is crucial to preserving patient satisfaction. Enhancing communication about wait times and patient flow, coupled with targeted strategies to alleviate overcrowding, can further improve patient experiences.

Recommendations:

- **Wait Time Management:** Implement fast-track systems, provide accurate estimated wait times, and offer distractions in waiting areas.
- **Overcrowding Alleviation:** Improve patient flow management

and consider expanding the ED.

- **Staff Training:** Focus on maintaining high standards in courtesy, professionalism, and responsiveness.
- **Facility Enhancements:** Improve seating comfort and entertainment options in waiting areas.

REFERENCES

1. Sun BC, Hsia RY, Weiss RE, Zingmond D, Liang LJ, Han W, et al. Effect of emergency department crowding on outcomes of admitted patients. *Ann Emerg Med*. 2013;61(6):605-11. DOI: 10.1016/j.annemergmed.2012.10.026.
2. Derlet RW, Richards JR. Overcrowding in the nation's emergency departments: complex causes and disturbing effects. *Ann Emerg Med*. 2000;35(1):63-8. DOI: 10.1016/S0196-0644(00)70105-3.
3. Pines JM, Hollander JE. Emergency department crowding is associated with poor care for patients with severe pain. *Ann Emerg Med*. 2008;51(1):1-5. DOI: 10.1016/j.annemergmed.2007.06.008.
4. Hall RH, Press I. Keys to patient satisfaction in the Emergency Department: results of a multiple facility study. *Hospital Topics*. 1996;74(4):9-14. DOI: 10.1080/00185868.1996.10543928.
5. Yancer DA, Foshee D, Cole H, Beauchamp R, Leek B, Williams T. Managing capacity to reduce emergency department overcrowding and ambulance diversions. *Jt Comm J Qual Saf*. 2006;32(5):239-45. DOI: 10.1016/S1553-7250(06)32031-6.
6. Derlet RW, Richards JR. Overcrowding in the nation's emergency departments: complex causes and disturbing effects. *Ann Emerg Med*. 2000;35(1):63-8. DOI: 10.1016/S0196-0644(00)70105-3.
7. Fee C, Weber EJ, Maak CA, Bacchetti P. Effect of emergency department crowding on time to antibiotics in patients admitted with community-acquired pneumonia. *Ann Emerg Med*. 2007;50(5):501-9. DOI: 10.1016/j.annemergmed.2007.01.016.
8. Kyriacou DN, Ricketts V, Dyne PL, McCollough MD, Talan DA. A 5-year time study analysis of emergency department patient care efficiency. *Ann Emerg Med*. 1999;34(3):326-35. DOI: 10.1016/S0196-0644(99)70288-3.
9. Gilligan P, Winder S, Singh I, Gupta V, Kelly P, Hegarty D, et al. The impact of consultant delivered service in emergency medicine: the Wrexham Model. *Emerg Med J*. 2008;25(6):354-7. DOI: 10.1136/emj.2007.049452.
10. Boudreaux ED, O'Hea EL. Patient satisfaction in the Emergency Department: a review of the literature and implications for practice. *J Emerg Med*. 2004;26(1):13-26. DOI: 10.1016/j.jemermed.2003.04.003.
11. McCaig LF, Burt CW. National Hospital Ambulatory Medical Care Survey: 2002 emergency department summary. *Adv Data*. 2004;(340):1-34. PMID: 15176256.
12. Liu SW, Thomas SH, Gordon JA, Hamedani AG, Weissman JS. A pilot study examining undesirable events among emergency department-boarded patients awaiting inpatient beds. *Ann Emerg Med*. 2009;54(3):381-5. DOI: 10.1016/j.annemergmed.2008.11.027.
13. Carrus B, Cordella L, Mariani M, Evangelista F, Grasselli C, Barbuti G, et al. Emergency Department performance: patient satisfaction vs. staff satisfaction. *BMC Health Serv Res*. 2021;21:980. DOI: 10.1186/s12913-021-06997-8.
14. Fee C, Weber EJ, Maak CA, Bacchetti P. Effect of emergency department crowding on time to antibiotics in patients admitted with community-acquired pneumonia. *Ann Emerg Med*. 2007;50(5):501-9. DOI: 10.1016/j.annemergmed.2007.01.016.
15. Hwang U, Richardson LD, Sonuyi TO, Morrison RS. The effect of emergency department crowding on the management of pain in older adults with hip fracture. *J Am Geriatr Soc*. 2006;54(2):270-5. DOI: 10.1111/j.1532-5415.2005.00587.x.
16. Kellermann AL. Crisis in the emergency department. *N Engl J Med*. 2006;355(13):1300-3. DOI: 10.1056/NEJMp068194.
17. Carrus B, Cordella L, Mariani M, Evangelista F, Grasselli C, Barbuti G, et al. Emergency Department performance: patient satisfaction vs. staff satisfaction. *BMC Health Serv Res*. 2021;21:980. DOI: 10.1186/s12913-021-06997-8.
18. Pines JM, Batt RJ, Hilton JA, Terwiesch C. The financial consequences of lost demand and reducing boarding in hospital emergency departments. *Ann Emerg Med*. 2011;58(4):331-40. DOI: 10.1016/j.annemergmed.2011.03.004.
19. Taylor C, Bengier JR. Patient satisfaction in emergency medicine. *Emerg Med J*. 2004;21(5):528-32. DOI: 10.1136/emj.2002.003723.
20. Hall RH, Press I. Keys to patient satisfaction in the Emergency Department: results of a multiple facility study. *Hospital Topics*. 1996;74(4):9-14. DOI: 10.1080/00185868.1996.10543928.