

Abstract 31**Association between overcrowding and patient satisfaction in a general surgical unit at Teaching Hospital, Jaffna**

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Background and objective: Overcrowding in hospital wards presents a growing challenge to healthcare systems in lower-income countries, significantly impacting patient satisfaction and quality of care. This study aimed to determine the association between overcrowding (measured by patient-to-nursing staff ratio (PNR) and bed occupancy ratio (BOR)) and patient satisfaction (PS) with ward care at a general surgical unit at Teaching Hospital Jaffna.

Methods: The first component of the study measured PNR and BOR for each patient during their hospital stay (PNR>5:1 and BOR>1:1 were considered overcrowding). The second component was a descriptive cross-sectional study to assess patient satisfaction among patients awaiting discharge from the same surgical unit. Consecutive sampling was used to include all patients who matched the study criteria (September 2024-January 2025). An interviewer-administered questionnaire with 28 questions assessed PS. A PS score (min 1, max 5) was computed for each participant a score of ≥ 4 was considered to convey satisfaction. Chi-square tests were used to determine the association between overcrowding and PS. Pearson's correlation coefficient assessed the relationship between PNR/BOR, and PS score (significance level 0.05).

Results: In total, 240 patients participated in the PS study (response rate of 93.8%). Mean age was 47.1 years; 43.8% were males. Mean duration of hospital stay was 4.2 days (SD 1.3). Mean PNR was 8.5 (SD 2.2), indicating overcrowding, and BOR was 0.7 (SD 0.3); 96.2% experienced overcrowding based on PNR and 10.4% based on BOR. Mean PS score was 3.9 (SD 0.4). A higher proportion of patients were dissatisfied with bathroom facilities (46.3%), illumination and ventilation (34.2%), and waiting time for bathroom use (32.2%). There were significant associations between PS and overcrowding, as measured by PNR ($p=0.001$) and BOR ($p=0.045$). A weak negative correlation was observed between PS score and PNR ($r=-0.218$, $p<0.001$) and BOR ($r=-0.143$, $p=0.026$).

Conclusion: PNR was well above the recommended standard in the general surgical unit at THJ. Overcrowding had an inverse relationship with PS. Addressing this issue requires optimizing PNR, expanding infrastructure, and improving ward facilities. Efficient and equitable resource allocation within and among hospitals should be a priority.

Key words: overcrowding, patient satisfaction, bed occupancy ratio, patient-to-nursing staff ratio, Jaffna