

## Evaluating the Impact of Staffing Ratios on Safety and Care Quality in Dementia Units

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### ARTICLE INFO

Keywords: : *Musculoskeletal injuries (MSIs), Patient handling techniques, Healthcare worker safety,*

Received : 25, September

Revised : 30, September

Accepted: 22, November

### ABSTRACT

Staffing ratios are a cornerstone of providing safe, high-quality care in dementia units, where patients often face complex challenges due to cognitive decline, behavioral issues, and physical limitations. Each caregiver in these units must balance the need for individualized attention with the demands of multiple residents—a task made more difficult by insufficient staffing. This study investigates how staffing ratios influence safety and care quality in dementia units, combining statistical analyses of patient outcomes with the lived experiences of caregivers, administrators, and healthcare professionals. The findings paint a vivid picture of the impact of staffing: when staffing levels are low, incidents such as falls, medication errors, and patient agitation rise sharply. Patients wait longer for help, their behaviors escalate due to unmet needs, and caregivers feel overwhelmed and stretched too thin (Juba, Lawal, David, & Olumide, 2023). Conversely, better staffing ratios translate into calmer environments, more attentive care, and greater satisfaction for residents and their families (Backhaus, Verbeek, van Rossum, Capezuti, & Hamers, 2018). Training, experience, and available support services also emerged as key factors that can either exacerbate or offset the effects of inadequate staffing (Juba et al., 2024). This study offers actionable recommendations, including optimal staffing benchmarks, enhanced caregiver training programs, and expanded support systems to foster better outcomes for dementia patients and the staff who care for them.

## **INTRODUCTION**

Imagine a dementia unit at the end of a busy day: the air filled with the gentle hum of patients chatting, staff moving purposefully between rooms, and family members visiting loved ones. In such settings, the number of caregivers present profoundly affects the daily experiences of both patients and staff. Dementia patients often need personalized attention, whether for assistance with daily activities, help managing medications, or simple companionship. When staffing levels are inadequate, this dynamic shifts dramatically, often at the expense of both patient well-being and caregiver morale.

Staffing ratios have long been recognized as a decisive factor in determining the quality of care in dementia units (Green & Thorogood, 2018). The strain caused by inadequate staffing manifests in various ways: delayed responses to patient needs, higher rates of preventable incidents, and increased stress for caregivers. Research by Juba, Lawal, David, and Olumide (2023) highlights the cascading effects of poor staffing ratios, from increased falls and agitation to caregivers experiencing burnout and fatigue.

Yet, the reverse is also true. Facilities with better staffing ratios report safer environments, fewer patient incidents, and more harmonious interactions between staff and residents (McCarthy & Smith, 2019). By examining these dynamics through the dual lenses of quantitative data and qualitative interviews, this study seeks to illuminate the critical role staffing plays in dementia care and offer solutions for improvement.

## **LITERATURE REVIEW**

The link between staffing ratios and care quality in dementia units has been widely explored, and the evidence is both compelling and concerning. Inadequate staffing is consistently tied to poor patient outcomes, including a higher frequency of falls, medication errors, and agitation episodes (Backhaus et al., 2018). For instance, Smith et al. (2019) found that facilities with low staffing levels experienced twice as many patient incidents compared to those

with adequate staff. These incidents not only jeopardize the safety of patients but also erode trust among families and strain the already challenging work of caregivers.

Juba, Olumide, and Azeez (2023) emphasize another important dimension: family involvement. Their research reveals that families are more likely to feel satisfied and involved when staffing ratios are sufficient, as this allows caregivers to foster better relationships with both patients and their loved ones. This dynamic becomes especially important when considering the emotional needs of dementia patients, who often benefit from consistent and familiar interactions.

Additionally, training and staff experience play pivotal roles in mediating the impact of staffing ratios. As Juba et al. (2024) highlight, even facilities with fewer staff members can mitigate negative outcomes through robust training programs and support systems. These findings echo those of Phiri et al. (2024), who advocate for integrating mental health resources and technological solutions, such as patient monitoring tools, into dementia care.

## **METHODOLOGY**

This study employs a mixed-methods approach to evaluate the impact of staffing ratios on safety and quality of care in dementia units.

### **1. Quantitative Analysis:**

- Data on staffing ratios and patient outcomes were collected from 25 dementia units over 12 months.
- Key metrics analyzed include fall rates, medication errors, incidents of agitation, and response times to patient needs.
- Statistical techniques, including regression analysis, were used to identify correlations between staffing levels and adverse events.

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## 2. Qualitative Analysis:

- Semi-structured interviews were conducted with 30 caregivers, 10 administrators, and 5 healthcare professionals.
- Themes explored included the challenges of maintaining adequate staffing levels, the role of training, and the perceived impact of staffing on care quality.

## 3. Case Studies:

- Three dementia units with varying staffing ratios were selected for in-depth analysis, providing contextual insights into how staffing levels influence daily operations and care outcomes.

## **RESULTS**

### Quantitative Findings

- Units with low staffing ratios (1:8 or higher):
  - Falls: Average of 12.5 falls per 100 patients per month.
  - Medication Errors: 15 errors per 1,000 medication administrations.
  - Response Times: Delays of 10–15 minutes for assistance requests.
  - Patient Agitation Incidents: Reported in 40% of monthly records.
- Units with higher staffing ratios (1:4 or lower):
  - Falls: Average of 5.2 falls per 100 patients per month.
  - Medication Errors: 4 errors per 1,000 medication administrations.
  - Response Times: Delays of less than 5 minutes for assistance requests.
  - Patient Agitation Incidents: Reported in 15% of monthly records.

### Qualitative Findings

- Caregiver Insights: Low staffing levels lead to burnout, reduced patient interaction time, and missed opportunities for individualized care.
- Administrator Feedback: Budget constraints often dictate staffing ratios, despite recognition of their impact on care quality.

- Healthcare Professionals: Emphasized the importance of staff training and suggested incorporating support services to alleviate caregiver workloads.

#### Case Study Insights

- Unit A (1:3 ratio): Demonstrated high levels of patient satisfaction, with family members praising the attentiveness of staff.
- Unit B (1:6 ratio): Staff reported challenges in providing consistent supervision, leading to several adverse incidents.
- Unit C (1:10 ratio): High rates of caregiver fatigue and frequent adverse events, including delayed medication administration.

### FINDINGS AND DISCUSSION

The results of this study are as clear as they are concerning. Quantitative analyses revealed a stark correlation: facilities with lower staffing ratios experienced more frequent adverse events, including falls, medication errors, and delayed responses to patient needs. One administrator described the challenge vividly:

“With so few staff, it feels like a constant game of triage. You’re always deciding who needs help the most, and someone inevitably gets left waiting.”

This sentiment echoes the findings of Juba et al. (2024), who emphasize that the emotional toll on caregivers often mirrors the physical toll on patients.

Conversely, facilities with higher staffing ratios told a different story. One caregiver shared:

“When we have enough hands-on deck, everything changes. Patients are calmer, families are happier, and we, as staff, go home feeling like we’ve made a difference.”

This aligns with the research by Backhaus et al. (2018), which underscores the positive outcomes associated with adequate staffing, including fewer incidents, improved patient mood, and higher overall satisfaction.

Qualitative data also revealed the importance of training and support. Even in settings with low staffing levels, facilities with well-trained caregivers reported better outcomes. For instance, one care manager described how their team uses de-escalation techniques learned in training to manage patient agitation effectively (Phiri et al., 2024). Similarly, Juba et al. (2023) highlights the role of technology, such as wearable monitoring devices, in bridging gaps caused by staffing shortages.

## CONCLUSION

This research reinforces what many caregivers and administrators already know: staffing ratios are a linchpin in the quality and safety of dementia care. But the findings also offer hope and direction. While increasing staffing levels is crucial, other interventions – such as enhanced training, family involvement, and the strategic use of technology – can help mitigate challenges where staffing increases are not immediately feasible.

By advocating for these changes, we can create environments where caregivers feel supported, patients receive the attention they need, and families rest assured that their loved ones are in good hands. Dementia care is about more than just managing symptoms; it's about preserving dignity and improving quality of life. And as this research shows, achieving that goal begins with ensuring there are enough hands and hearts to do the work.

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