

Implementation and Evaluation of the Patient Reported Incident Management System (PRIM): A Pilot Implementation for Patient Empowerment

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ABSTRACT

This study aims to identify the nature and prevalence of patient safety incidents and the design, development, and implementation of a patient-reported incident management system. The system's effectiveness in capturing patient-reported incidents and promoting patient empowerment was also evaluated. Findings reveal that nearly 33.8% of patients reported experiencing a patient safety incident, with 81.6% of these incidents identified by the patients themselves. After the implementation of the system, 47% of reported incidents were addressed by staff, indicating a significant improvement in patient empowerment. Furthermore, there was a 71% increase in overall incident reporting. Following the introduction of the patient-reported incident management system, 67% of patients reported feeling more empowered, and 53% provided positive feedback regarding the system's user-friendliness.

KEYWORDS

Patient-Reported Incident Management System, Patient Empowerment, Patient-Reporting, Patient Safety

INTRODUCTION

Individuals seeking healthcare often experience significant harm due to deficiencies in the quality of care (Brabcová et al., 2023; Liukka et al., 2020). Approximately 10% of patients in low- and middle-income countries experience harm, placing patient harm 14th on the global burden of disease list (Singh & Mahomed, 2023). Additionally, the financial impact of patient harm is severe,

DOI: 10.4018/IJRQEH.368854

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accounting for approximately 15% of total healthcare costs due to limited resources and patient safety systems (Mgobozi & Mahomed, 2021; Poku et al., 2023; Singh & Mahomed, 2023).

The World Health Organization (WHO, 2020) supports this observation, noting that the burden of patient safety incidents (PSIs)—unforeseen events that can result in patient harm—is disproportionately higher in developing countries (Dhingra-Kumar et al., 2021). Findings from Middle Eastern and African countries report that patient harm is the leading cause of 14% permanent disability and 16% moderate disability, resulting in economic repercussions (WHO, 2020). This has attracted the attention of health policymakers and researchers, who work on developing and implementing interventions aimed at mitigating patient harm at both individual and institutional levels (Ahsani-Estahbanati et al., 2022; Li et al., 2024; Rodziewicz et al., 2018; Ward et al., 2011; Zegers et al., 2016).

BACKGROUND

PSIs include a range of events, from near misses to severe harm or fatalities (Shemsu et al., 2024). Such events pose a significant global threat, with prevalence more pronounced in low- and middle-income countries, where an estimated 134 million adverse events are reported annually. These incidents are intricately linked to adverse treatment outcomes, contributing to increased morbidity, mortality, healthcare expenditure, prolonged hospital stays, decreased quality of life, and poor patient satisfaction with healthcare delivery (Al-Wafi, 2023; Shemsu et al., 2024; WHO, 2020). Consequently, researchers have explored various strategies aimed at minimizing patient harm across healthcare settings (Ahsani-Estahbanati et al., 2022; Li et al., 2024; Rodziewicz et al., 2018; Zegers et al., 2016).

Existing literature has classified interventions to contain patient harm or PSIs into the following categories: (1) electronic system-based approaches; (2) process interventions like critical incident reporting; (3) audit and feedback; (4) inter-professional education; (5) patient-centered strategies; (6) leadership and managerial strategies; (7) patient care programs; (8) workplace culture enhancements; and (9) direct observation (Ahsani-Estahbanati et al., 2022; Gleeson et al., 2020; Rodziewicz et al., 2018; Zegers et al., 2016). While most interventions focus on healthcare workers (Ahsani-Estahbanati et al., 2022; Gleeson et al., 2020; Rodziewicz et al., 2018; Zegers et al., 2016), a few studies highlight patient- and family-centered interventions that promote patient safety (Ahsani-Estahbanati et al., 2022; Li et al., 2024).

Likewise, the importance of voluntary incident reporting to monitor patient safety risks is observed in healthcare settings globally (Ahsani-Estahbanati et al., 2022; Cavell & Mandaliya, 2021; Cottell et al., 2020; Gleeson et al., 2020). The validity and seriousness of incidents reported voluntarily by healthcare professionals have been scrutinized within the scientific community, as healthcare personnel often show reluctance to report adverse patient events (Macrae, 2016; Yusuf & Irwan, 2021).

Additionally, studies underscore the substantial impact of inadequate organizational support (Archer et al., 2017; Hamed & Konstantinidis, 2022; Shemsu et al., 2024), fear of negative professional and legal repercussions (Hamed & Konstantinidis, 2022; Naom et al., 2020), and insufficient training in incident reporting systems (Hamed & Konstantinidis, 2022; Lee et al., 2018; Naom et al., 2020) as key barriers to staff participation in incident reporting. This has led to investigations into patient-engaged interventions to reduce PSIs (Abdi et al., 2024; Avanecean et al., 2017; Berger et al., 2014; Rossiter et al., 2020).

Studies on patient engagement interventions have reported marginal reductions in PSIs, including falls, bed sores, and medication errors (Abdi et al., 2024; Avanecean et al., 2017; Berger et al., 2014; Rossiter et al., 2020; Sahlstrom et al., 2018). Sahlstrom et al. (2018) examined the impact of patient-reported PSIs in Finnish hospitals, highlighting the types of PSIs and the action plans and organizational changes adopted to prevent recurring patient harm.

Additionally, Madden et al. (2022) and WHO (n.d.) validated the ability of patients to identify a range of adverse events in healthcare that might otherwise remain hidden. While previous research on patient engagement interventions has yielded encouraging findings, there remains a need for rigorous

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