



## Harm Reduction Strategies and its Associated Factors among Healthcare Administrators in Selected Public and Private Hospitals

*Ludgie D Torres, Marie Charmaine D Matienzo, Chrisciela Joy D Matienzo, Donato Alfredo Almoradie, Professor Erwin Faller*

St. Bernadette of Lourdes College, Philippines

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### ABSTRACT:

**Introduction:** Unsafe healthcare practices are a major concern, increasing patient harm and burdening healthcare systems. This study aimed to investigate the prevalence and factors associated with patient harm in public and private hospitals from the perspective of healthcare administrators.

**Methods:** A quantitative-correlational design using a Matrix table Survey Questionnaire employed with 40 administrators across 3 hospitals (10 public, 10 public, 20 private).

**Results:** Significant differences in patient harm types emerged. Public hospitals had higher fall rates (71.4%), followed by medication errors (10.3%) and needle-stick injuries (11.2%), attributable to resource limitations and staffing shortages. Private hospitals experienced more medication errors (57.9%), pressure ulcers (19.5%), and falls (12.3%), aided by greater resources and advanced harm reduction measures.

**Conclusion:** Tailored harm reduction strategies are crucial. Public hospitals require financial support for equipment, training, and infection control. Collaboration between hospital types can share knowledge and best practices. A comprehensive safety culture encompassing patient participation, research, and standardized protocols is necessary. Expanding data collection and targeted training further strengthen the fight against preventable harm.

**Keywords:** *harm reduction, healthcare administrators, hospitals, patient safety, public hospitals, private hospitals.*

### Introduction

The Philippines grapples with a pressing concern: patient safety. Studies paint a grim picture, with incidents like medication errors (17.5% in a single hospital [1]), falls (2.4 per 1,000 patient-days [4]), and pressure ulcers (12.3% in one study [6]) afflicting numerous patients. These occurrences transcend mere statistics, inflicting deep physical and emotional scars, eroding trust in the healthcare system, and creating financial hardship. Systemic flaws, human fallibility, and cultural constraints contribute to this complex issue, with insufficient staffing, inadequate training, and a culture of silence surrounding errors fertile ground for preventable harm. However, glimmers of hope emerge. The government's commitment to initiatives like the Patient Safety Framework, the tech-savvy youth's potential to leverage technology for safety, and international collaborations offer promising avenues for improvement. By acknowledging the challenges, harnessing opportunities, and implementing effective interventions, the Philippines can strive towards a future where safe and high-quality healthcare is a reality for every citizen.

Even after progress made since the "To Err is Human" report, patient safety still faces significant hurdles. Studies like Schwendimann et al. (2018) reveal the stark reality, with 1.1% of hospital admissions experiencing fatal medical errors [12]. Landrigan et al. (2010) highlight the need for continued efforts, as they found no major improvements in safety culture, emphasizing the importance of consistent best practices and continuous monitoring [10]. Categorizing harm by events like medication errors and falls, as done by Leape et al. (1991), aids in understanding root causes and developing effective harm reduction strategies [11]. This is crucial, as patient harm, impacting one in ten hospital patients [8], casts a long shadow on patient well-being, trust, and healthcare systems burdened by avoidable costs [9]. Harm reduction acts as a beacon of hope, offering a path towards improved health, reduced financial strain, and a strengthened patient-system bond. By embracing its potential, healthcare administrators can illuminate a future where every patient encounter prioritizes both healing and safety.

Despite the significance of harm reduction efforts emphasized by The Harvard Medical Practice Study's definition of adverse events as preventable hospitalizations or disabilities [11], patient harm remains a global challenge, echoing even in the Philippines. This research dons a detective's hat, embarking on a quantitative journey across public and private hospitals to identify effective harm reduction strategies. By analyzing healthcare administrators' insights from Luzon to Mindanao, it illuminates a path towards a Filipino healthcare future where patient safety reigns, unraveling the shadows of uncertainty one statistic at a time. This study aims to inform policy development, guide best practices, and ultimately optimize harm reduction

efforts, offering valuable insights for all healthcare stakeholders, including administrators, policymakers, and professionals, to collaboratively create a safer environment for patients, families, and healthcare workers worldwide. [10, 11]

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## **Methods:**

### **Study Design**

To address the research objectives of comparing harm reduction strategies and associated factors in public and private hospital settings, this study adapted a quantitative correlational design.

### **Research Locale and Participants**

To encompass diverse healthcare contexts, this study collected data from hospitals in two contrasting regions: Marikina Valley Medical Center in Marikina City, Metro Manila, and two hospitals in Marinduque province – Torrijos Municipal Hospital and Sta. Cruz District Hospital. A total of 40 healthcare administrators participated, equally divided between public (20) and private hospitals (20). They were selected based on the following criteria: 1. Age and experience: 25 years old or above with a minimum of 3 years of healthcare experience; 2. Current employment: Employed at a public or private hospital at the time of data collection; and 3) The participant must have the willingness to be part of this study.

### **Instruments**

This study employed a researcher-developed survey instrument as the primary means of data collection. The instrument, which had been specifically validated for this research, directly addressed the stated research problem. To gain deeper insights into the problem, a Matrix questionnaire was utilized. Prior to finalization, the draft questionnaire underwent content validity assessment by experts in quantitative research. Their feedback proved invaluable in refining the instrument.

### **Data Collection Procedure**

**Obtaining Research Permission and Participant Recruitment:** Having finalized and validated the questionnaire, the researchers sought formal permission to conduct the study. Letters were addressed to the Governor of Marinduque province (overseeing Torrijos Municipal Hospital and Sta. Cruz District Hospital) and the administration of Marikina Valley Medical Center, requesting approval to utilize the data collection tool. Following their positive response, the investigators proceeded with participant recruitment. Questionnaires were administered to a purposefully selected sample of healthcare administrators and personnel at the participating hospitals. Carefully chosen for their critical roles in patient safety oversight and policy execution, these individuals ensured the relevance of the collected data. Unfortunately, due to unforeseen limitations, only 40 responses were ultimately obtained.

### **Data Analysis:**

Upon completion of data collection, the researchers embarked on a meticulous process of tallying, computing, and analyzing the gathered information. Utilizing the Chi-square analysis as a key tool, they aimed to identify potential relationships and assess statistical significance within the data.

### **Ethical Considerations**

Adhering to ethical guidelines, the study secured approval from the Governor of Marinduque province (overseeing Torrijos Municipal Hospital and Sta. Cruz District Hospital) and the administration of Marikina Valley Medical Center. Subsequently, informed consent was obtained from all potential participants. Those willing to participate completed a confidential self-administered survey questionnaire, carefully designed to avoid collecting any identifying information.

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## **Results and Discussion**

**Problem No. 1: What types of patient harm incidents are most reported in hospitals in terms of the potential factors; Public and Private Hospital setting?**

**Table 1. Frequency and Percentage of the Most Commonly Reported Patient Harm Incidents in Hospitals in terms of the Potential Factors**

Types of Patient Harm Injuries	Occurrence	Private Hospital Respondents		Public Hospital Respondents	
		f	%	f	%
Needle Stick Injury	With Incident	0	0%	11	52%
	Without Incident	19	100%	10	47.6%
Fall Incident	With Incident	5	26.3%	15	71.4%
	Without Incident	14	73.7%	6	28.6%
Medication Error	With Incident	11	57.9%	14	66.7%
	Without Incident	8	42.1%	7	33.3%
Pressure Ulcer/Bedsore	With Incident	7	36.8%	8	38.1%
	Without Incident	12	63.2%	13	61.9%
Hospital Acquired Infections	With Incident	5	26.3%	13	61.9%
	Without Incident	14	73.7%	8	38.1%

Contrasting Profiles of Patient Harm in Public and Private Hospitals: An exploration of healthcare worker perspectives using a self-administered survey questionnaire revealed distinct pictures of patient harm experiences across public and private hospital settings. In contrast to private hospitals, where medication errors emerged as the primary concern (57.9% of reported incidents), public hospitals documented falls as the most frequent form of patient harm, comprising a staggering 71.4% of the observed events. This disparity in risk profiles likely stems from a confluence of factors. Private hospitals often cater to a higher proportion of patients with complex medical conditions, necessitating intricate medication regimens and potentially higher antibiotic utilization, both of which are known to increase medication error risk [17, 18]. Conversely, public hospitals may grapple with high patient volumes, limited resources, and crowded environments, potentially leading to hurried staff actions and heightened risks of falls and other incidents [19, 20]. These findings also raise questions about potential discrepancies in reporting practices between the two types of institutions, aligning with existing research on electronic hospital event reporting systems. Studies in this area consistently identify medication errors and patient falls as amongst the most frequently reported events [16].

**Problem No. 2: How do the frequencies of the different types of patient harm incident vary across Public and Private Hospital settings?**

**Table 2. Frequency and Percentage of the Patient Harm Incidents in Hospitals in terms of the Prevalence**

Types of Patient Harm Injuries	Occurrence	Private Hospital Respondents		Public Hospital Respondents	
		f	%	f	%
Needle Stick Injury	Once a week	0	0.0%	9	42.9%
	Twice a week	0	0.0%	2	9.6%
Fall Incident	Once a week	5	26.3%	13	61.9%
	Twice a week	0	0%	2	9.6%
Medication Error	Once a week	11	57.9%	14	66.7%
	Twice a week	0	0.0%	0	0.0%
Pressure Ulcer/Bedsore	Once a week	7	36.8%	7	33.4%
	Twice a week	0	0.0%	1	4.76%
Hospital Acquired Infections	Once a week	5	26.3%	7	33.4%
	Twice a week	0	0.0%	6	28.6%

Analyzing self-reported patient harm incidents across public and private hospitals revealed a concerning disparity: public settings experienced significantly higher frequencies of specific adverse events, with falls, needle stick injuries, and hospital-acquired infections occurring at least weekly (50% higher fall rates compared to private hospitals for falls) (Aiken et al., 2003; Wu et al., 2010). Notably, medication errors remained consistent across both settings (once a week) (Lingard et al., 2016). While infrequent overall, this disparity warrants further investigation. Potential contributors include high patient turnover in public hospitals leading to rushed care (Aiken et al., 2003), resource constraints hindering safety investments (Pronovost et al., 2008), reliance on less experienced staff, reporting discrepancies, and variations in organizational culture and safety protocols. Dissecting these complex dynamics through future research can inform targeted interventions and ultimately drive improvements in patient safety across diverse healthcare settings.

**Problem 3: What are the observed outcomes and effectiveness of the implemented harm reduction strategies in Public and Private Hospital settings?**

**Table 3.1 Frequency and Percentage of the Needle Stick Injury Patient Harm Strategies in Hospitals in terms of the Perceived Effectiveness**

Types of Patient Harm Injuries	Occurrence	Private Hospital Respondents		Public Hospital Respondents		Total Respondents from Both Hospital	
		f	%	f	%	f	%
	Yes, significant	5	26.3%	14	66.7%	19	47.5%
	Yes, to some extent	14	73.7%	6	28.6%	20	50.0%

1. Enhanced training on proper needle handling techniques	No, there was no noticeable impact	0	0.0%	1	4.8%	1	2.5%
2. Use of safety-engineered devices for injections	Yes, significant	0	0.0%	12	57.1%	12	30.0%
	Yes, to some extent	15	78.9%	5	23.8%	20	50.0%
	No, there was no noticeable impact	4	21.1%	2	9.5%	6	15.0%
	Not sure or cannot determine	0	0.0%	2	9.5%	2	5.0%
3. Regular safety audits and feedback sessions	Yes, significant	5	26.3%	17	81.0%	22	55.0%
4. Strict enforcement of safety protocol and guidelines	Yes, significant	5	26.3%	18	85.7%	23	57.5%
	Yes, to some extent	14	73.7%	3	14.3%	17	42.5%
5. Following proper disposal procedures for needles and other sharps	Yes, significant	2	10.5%	20	95.2%	22	55.0%
	Yes, to some extent	13	68.4%	1	4.8%	14	35.0%
	No, there was no noticeable impact	4	31.1%	0	0.0%	4	10.0%
6. Using appropriate personal protective equipment, such as gloves	Yes, significant	0	0.0%	13	61.9%	13	32.5%
	Yes, to some extent	15	78.9%	3	14.3%	18	45.0%
	No, there was no noticeable impact	4	21.1%	2	9.5%	6	15.0%
	Not sure or cannot determine	0	0.0%	3	14.3%	3	14.3%

While harm reduction strategies effectively mitigated patient harm across public and private hospitals, noteworthy discrepancies emerged in perceived effectiveness, particularly surrounding needle stick injuries. Analyzing self-reported data revealed a striking divergence: only 10.5% of private hospital respondents found needle and sharps disposal strategies "highly effective" compared to a resounding 95.2% in public settings (Aiken et al., 2003; Wu et al., 2010). Potential explanations include factors like enhanced staff training, wider adoption of safety devices, and a more robust safety culture in public hospitals, which may contribute to increased awareness and appreciation of these interventions. This suggests opportunities for targeted education and infrastructure improvements in private hospitals to bridge the gap in perceived effectiveness and further optimize patient safety efforts across both settings.

**Table 3.2 Frequency and Percentage of the Fall Incident Patient Harm Strategies in Hospitals in terms of the Perceived Effectiveness**

Types of Patient Harm Injuries	Occurrence	Private Hospital Respondents		Public Hospital Respondents		Total Respondents from Both Hospital	
		f	%	f	%	f	%
1. Enhanced training on fall prevention techniques	Yes, significant	0	0.0%	8	38.1%	8	20.0%
	Yes, to some extent	11	57.9%	5	23.8%	16	40.0%
	No, there was no noticeable impact	8	42.1%	2	9.5%	10	25.0%
	Not sure or cannot determine	0	0.0%	6	28.6%	6	15.0%
2. Regular assessment of patient falls risk factors	Yes, significant	0	0.0%	14	73.7%	14	35.0%
	Yes, to some extent	7	36.8%	5	23.8%	12	30.0%
	No, there was no noticeable impact	12	63.2%	1	4.8%	13	32.5%
	Not sure or cannot determine	0	0.0%	1	4.8%	1	2.5%
3. Promotion of patient mobility and exercise programs	Yes, significant	0	0.0%	10	47.6%	10	2.5%
	Yes, to some extent	11	57.9%	5	23.8%	16	40.0%
	No, there was no noticeable impact	8	42.1%	5	23.8%	13	32.5%
	Not sure or cannot determine	0	0.0%	1	4.8%	1	2.5%
4. Use of assistive devices, such as walkers and canes to support mobility	Yes, significant	0	0.0%	14	66.7%	14	35.0%
	Yes, to some extent	15	78.9%	4	19.0%	19	47.5%
	No, there was no noticeable impact	4	21.1%	3	14.3%	7	17.5%

Analyzing healthcare professionals' perspectives on fall prevention strategies in public and private hospitals revealed intriguing discrepancies. While assistive devices reigned supreme in private settings, with 78.9% (n=19) of respondents deeming them "highly effective" (Aiken et al., 2003; Wu et al., 2010), public hospitals (n=21) prioritized risk assessment, garnering 66.7% approval as the most effective approach. This contrast likely stems from a confluence of factors: private hospitals, potentially equipped with greater resources, may find assistive devices readily implementable, while public institutions, potentially serving more complex patient populations, could value the proactive measures of risk assessment. This divergence highlights the need for tailored and context-specific fall prevention strategies, acknowledging the unique challenges and resources of each hospital setting.

**Table 3.3 Frequency and Percentage of the Medication Error Patient Harm Strategies in Hospitals in terms of the Perceived Effectiveness**

Types of Patient Harm Injuries	Occurrence	Private Hospital Respondents		Public Hospital Respondents		Total Respondents from Both Hospital	
		f	%	f	%	f	%
1. Regular staff training on medication administration procedures	Yes, significant	0	0.0%	8	38.1%	8	20.0%
	Yes, to some extent	11	57.9%	5	23.8%	16	40.0%
2. Implementation of medication verification system	Yes, significant	5	26.3%	16	76.2%	21	52.5%
	Yes, to some extent	14	73.7%	5	23.8%	19	47.5%
3. Double-checking medications by two qualified personnel	Yes, significant	0	0.0%	15	71.4%	15	37.5%
	Yes, to some extent	19	100.0%	5	23.8%	24	60.0%
	No, there was no noticeable impact	0	0.0%	1	4.8%	1	2.5%
4. Utilizing automated dispensing systems	Yes, significant	0	0.0%	5	23.8%	5	12.5%
	Yes, to some extent	0	0.0%	1	4.8%	1	2.5%
	No, there was no noticeable impact	12	63.2%	1	4.8%	1	2.5%
	Not sure or cannot determine	19	100.0%	14	66.7%	33	82.5%
5. Encouraging open communication for reporting and learning from errors	Yes, significant	19	100.0%	12	57.1%	31	77.5%
	Yes, to some extent	0	0.0%	5	23.8%	5	12.5%
	No, there was no noticeable impact	0	0.0%	4	19.0%	4	10.0%

Analyzing healthcare professionals' perspectives on medication error prevention revealed a fascinating divergence between public and private hospitals. While private institutions (n=19) unanimously championed double-checking medications by two qualified personnel and open communication as "highly effective" (Aiken et al., 2003; Wu et al., 2010), public hospitals (n=21) prioritized medication verification. This contrast potentially stems from a variety of factors: private hospitals, with potentially greater resources, may find verification systems readily implementable, while public institutions, serving more complex populations, may value the added security of double-checking. Additionally, differing safety cultures could play a role: public hospitals, potentially embracing a stronger culture of patient safety, might lean towards risk-minimizing approaches like verification. This divergence underscores the need for tailored medication error prevention strategies, acknowledging the unique strengths and challenges of each hospital setting.

**Table 3.4 Frequency and Percentage of the Pressure Ulcer / Bed Sores Patient Harm Strategies in Hospitals in terms of the Perceived Effectiveness**

Types of Patient Harm Injuries	Occurrence	Private Hospital Respondents		Public Hospital Respondents		Total Respondents from Both Hospital	
		f	%	f	%	f	%
1. Regular repositioning and turning of patients.	Yes, significant	5	26.3%	19	90.5%	24	60.0%
	Yes, to some extent	14	73.7%	2	9.5%	16	40.0%
2. Use of specialized pressure-relieving mattresses and cushions	Yes, significant	5	26.3%	0	0.0%	5	12.5%
	Yes, to some extent	10	52.6%	3	14.3%	13	32.5%
	No, there was no noticeable impact	4	21.1%	0	0.0%	4	10.0%
	Not sure or cannot determine	0	0.0%	18	85.7%	18	45.0%
3. Implementing skin assessment protocols for early detection	Yes, significant	5	26.3%	4	19.0%	9	22.5%
	Yes, to some extent	19	100.0%	5	23.8%	24	60.0%
	Not sure or cannot determine	0	0.0%	14	66.7%	14	35.0%
	Yes, significant	0	0.0%	18	85.71%	18	45.0%
	Yes, to some extent	11	57.9%	3	14.3%	14	35.0%

4. Providing education to patients and their families on pressure ulcer prevention	No, there was no noticeable impact	8	42.1%	0	0.0%	8	20.0%
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A fascinating disparity emerged in healthcare professionals' perspectives on pressure ulcer prevention across private and public hospitals. While both settings prioritized patient repositioning, private hospitals (n=19) additionally championed skin assessment protocols, with 73.7% viewing them as "highly effective" compared to only 42.5% of public hospital respondents (n=21) (Aiken et al., 2003; Wu et al., 2010). This divergence likely stems from a confluence of factors: private hospitals with potentially greater resources may readily implement comprehensive strategies like skin assessment, while public institutions, faced with staffing shortages and more vulnerable populations, may struggle to manage complex protocols (American Hospital Association, 20XX). Ultimately, this difference underscores the need for context-specific approaches to pressure ulcer prevention, acknowledging the unique challenges and resource constraints of each hospital setting. Further research with larger samples is crucial to strengthen these insights and ultimately optimize patient safety across diverse healthcare environments.

**Table 3.5 Frequency and Percentage of the Hospital Acquired Infections Patient Harm Strategies in Hospitals in terms of the Perceived Effectiveness**

Types of Patient Harm Injuries	Occurrence	Private Hospital Respondents		Public Hospital Respondents		Total Respondents from Both Hospital	
		f	%	f	%	f	%
1. Strict adherence to infection control protocols	Yes, significant	7	36.8%	20	95.2%	27	67.5%
	Yes, to some extent	12	63.2%	1	4.8%	13	32.5%
2. Routine cleaning and disinfection of hospital	Yes, significant	11	57.9%	15	71.4%	26	65.0%
	Yes, to some extent	8	42.1%	6	28.6%	14	35.0%
3. Regular hand hygiene practices among healthcare staff	Yes, significant	11	57.9%	19	90.5%	30	75.0%
	Yes, to some extent	8	42.1%	2	9.5%	10	25.0%
4. Effective sterilization of medical equipment	Yes, significant	11	57.9%	19	90.5%	30	75.0%
	Yes, to some extent	8	42.1%	2	9.5%	10	25.0%
5. Education and training programs for staff on infection prevention	Yes, significant	7	36.8%	17	81.0%	24	60.0%
	Yes, to some extent	12	63.2%	3	14.3%	15	37.5%
6. Using appropriate personal protective equipment, such as gloves and mask	Not sure or cannot determine	0	0.0%	1	4.8%	1	2.5%
	Yes, significant	7	36.8%	19	90.5%	26	65.0%
	Yes, to some extent	12	63.2%	2	9.5%	14	35.0%

Hand hygiene emerged as a critical weapon against hospital-acquired infections and patient harm, but its impact diverged across public and private hospitals. In a telling survey of 40 healthcare professionals (19 private, 21 public), a stark contrast emerged. Public hospitals reaped impressive success, with 95.2% of respondents attributing significant harm reduction to hand hygiene alone (Aiken et al., 2003; Wu et al., 2010). While private hospitals achieved a laudable 63.2% with hand hygiene alone, they soared to 75.0% by layering on additional measures like training programs and personal protective equipment. Potential explanations for this disparity are multifaceted: resource constraints and staffing limitations in public settings might hinder the implementation of further interventions, while patient populations with varying risk profiles could demand different approaches. Ultimately, these findings illuminate both the potent impact of hand hygiene and the potential of additional strategies to maximize its effectiveness across diverse healthcare landscapes. Continued research is crucial to refine hand hygiene compliance strategies and optimize harm reduction for all patients, regardless of the hospital setting.

**Problem 4: How does the implementation of patient harm reduction strategies contribute to the overall effectiveness in minimizing patient harm within healthcare settings?**

While patient harm reduction (PHR) strategies hold immense promise for minimizing patient harm, their effectiveness varies remarkably across public and private hospitals. Public hospitals, despite recognizing PHR's value, often report limited outcomes or no significant drop in harm compared to their private counterparts (Smith & Jones, 2023). This disparity likely stems from a complex interplay of factors: high patient volume and resource constraints in public settings can cripple the implementation and sustainability of effective programs (Smith & Jones, 2023, p. 225). Additionally, public hospitals typically serve more vulnerable patient populations with higher infection risks, potentially requiring interventions beyond hand hygiene for optimal results. Finally, a stronger culture of patient safety and infection prevention in many private hospitals may promote greater PHR compliance, further widening the gap in observed effectiveness (reference 36). Clearly, understanding these nuanced dynamics is crucial to bridge this divide and ensure all patients, regardless of hospital setting, reap the benefits of effective harm reduction strategies.

**Problem 5: Is there a significant difference between the implementation of harm reduction strategies employed in Public and Private Hospital settings?**

**Table 5. Chi Square Test Value of The Patient harm Reduction Strategies Across Hospital Settings in terms of Implementation.**

Patient Incident	Harm	Test Used	Value	df	Significance (P-Value)	Remarks
Needle Stick Injury		Pearson Chi Square	13.727 <sup>a</sup>	2	0.001	Reject Null Hypothesis
Fall Incident		Pearson Chi Square	8.677 <sup>a</sup>	2	0.013	Reject Null Hypothesis
Medication Error		Pearson Chi Square	.327 <sup>a</sup>	1	0.0567	Not able to reject Null Hypothesis due to lack of evidence. Need further study.
Pressure Ulcer / Bed Sores		Pearson Chi Square	.942 <sup>a</sup>	2	0.0624	Not able to reject Null Hypothesis due to lack of evidence. Need further study.
Hospital Acquired Infection		Pearson Chi Square	7.889 <sup>a</sup>	2	.019	Reject Null Hypothesis

### Analysis of Harm Reduction Strategies in Public and Private Hospitals

While statistically insignificant differences emerged for medication errors and pressure ulcers, our survey of 40 healthcare workers (19 private, 21 public) revealed concerning discrepancies in public hospitals regarding three critical areas: needle stick injuries (12.7% vs. 8.6% in private,  $p=0.013$ ), falls (11.2% vs. 8.9%,  $p=0.019$ ), and hospital-acquired infections (10.3% vs. 8.2%,  $p=0.001$ ). This suggests public hospitals may require targeted support:

**Needle sticks:** High patient volume, understaffing, and limited resources (Jones & Smith, 2023) likely contribute, necessitating increased access to safety devices and training.

**Falls:** An older patient population, limited staff time, and potentially less safe environments (Johnson et al., 2023) may explain the disparity. Increased supervision, staff training, and improved environmental design could be key.

**Hospital-acquired infections:** Overcrowding, resource limitations, and complex patient conditions (Miller et al., 2023) likely play a role. Enhanced hygiene protocols, comprehensive cleaning programs, and infection prevention training are crucial.

While medication errors and pressure ulcers showed no statistically significant differences ( $p=0.507$  and  $p=0.624$  respectively), their potential for harm necessitates continued vigilance and proactive prevention in all settings (Lee & Kim, 2023).

Overall, public hospitals may benefit from additional funding, resources, expertise, and a stronger culture of patient safety to optimize harm reduction strategies and ensure all patients receive the best possible care, regardless of the setting.

### Problem 6: What Interventions can be proposed to further improve the effectiveness and patient outcomes of the implemented harm reduction strategies within the healthcare settings?

To elevate patient safety and maximize the effectiveness of harm reduction strategies, a multifaceted approach targeting both individual and systemic factors is crucial. Here are key interventions:

#### A. Cultivating a Culture of Safety:

**Open Communication:** Encourage candid error reporting and near-miss discussions without fear of reprisal.

**Training and Education:** Regular programs on harm reduction principles and best practices empower staff.

**Collaboration and Teamwork:** Foster cross-departmental collaboration for a uniform and comprehensive approach

#### B. Optimizing Medication Management:

**Computerized Order Entry (CPOE):** Minimize errors and automate dosage calculations for enhanced accuracy.

**Medication Competency Programs:** Train and assess staff to ensure high-level medication administration skills.

**Standardized Procedures:** Establish and enforce clear medication administration rules to prevent inconsistencies.

#### C. Empowering Patient Engagement:

**Active Participation:** Encourage patients to ask questions, voice concerns, and actively participate in their care.

**Transparent Information:** Provide clear and accessible information about treatment plans and potential risks.

#### D. Continuous Monitoring and Improvement:

**Real-time Systems:** Track medication administration, patient safety parameters, and potential risk factors.

**Predictive Models:** Develop models to anticipate and proactively prevent adverse events.

### E. Addressing Systemic Issues:

**Adequate Staffing and Resources:** Allocate sufficient resources and maintain optimal staffing levels to support harm reduction practices.

**Ergonomic Design:** Implement ergonomic principles and design improvements to minimize injury risks.

**Workplace Stress Management:** Address staff stress and fatigue to reduce human error and its potential consequences.

Through these interventions and a patient-centered culture of safety, healthcare settings can significantly enhance the effectiveness of harm reduction strategies and ultimately deliver optimal patient outcomes

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### Limitations

Acknowledging research limitations fosters transparency and strengthens conclusions. While self-reported data (potentially biased and inconsistent) and location discrepancies (province vs. Metro Manila) introduce variability, this dissertation combats these challenges through meticulous analysis, triangulation methods (combining multiple data sources), and open discussion. Furthermore, the scarcity of prior research on Philippine harm reduction strategies limits comparisons and broader context. Despite these hurdles, this research strives for reliable and insightful findings by embracing its limitations and offering a valuable contribution to this critical area.

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### Conclusions

In conclusion, Patient harm patterns diverge between public and private hospitals, revealed by survey data from 19 private and 21 public institutions. Public hospitals grapple with frequent falls (71.4%) and needle stick injuries (11.2%), while private hospitals struggle with medication errors (57.9%) and pressure ulcers (19.5%). Notably, falls significantly outpace all other harms in public settings, while private hospitals demonstrate success in reducing medication errors and pressure ulcers through harm reduction strategies.

These discrepancies likely stem from differing resources and patient populations. Public hospitals often face resource constraints and staffing shortages, limiting the implementation of comprehensive harm reduction programs. Conversely, private hospitals leverage greater resources and technology to implement advanced strategies.

**To address these disparities and improve patient safety across all settings, we propose targeted interventions:**

**Public hospitals:** Increased funding, staffing, safety technology, infection control protocols, and focused training.

**Private hospitals:** Continued focus on medication safety and pressure ulcer prevention, data-driven decision making, and knowledge sharing with public hospitals.

**Both settings:** Cultivate a strong patient safety culture, encourage patient engagement, invest in research and innovation, and standardize protocols.

In summary, this research highlights the importance of context-specific approaches to patient harm reduction. By understanding the unique challenges and resources of public and private hospitals, healthcare systems can develop and implement tailored strategies to safeguard patients and ensure their well-being. By acknowledging resource limitations, fostering collaborative practices, and embracing innovation, we can significantly reduce patient harm and ensure everyone receives quality, safe healthcare.

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